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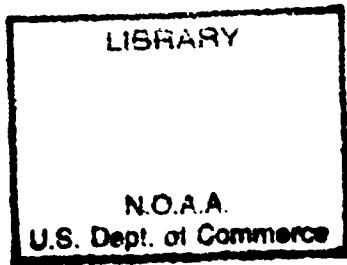
MONTHLY WEATHER REPORT

VOLUME 10

NUMBER 1

JANUARY, 1967

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MINISTRY OF SCIENTIFIC RESEARCH — METEOROLOGICAL DEPARTMENT
CAIRO

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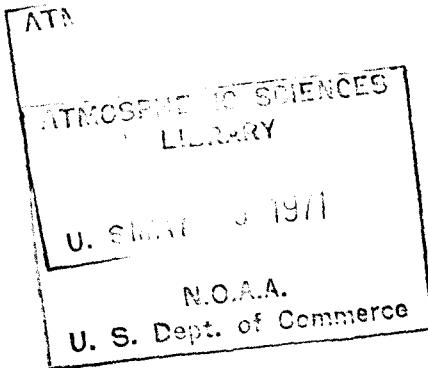
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PUBLICATIONS OF THE METEOROLOGICAL DEPARTMENT OF THE UNITED ARAB REPUBLIC—CAIRO

In fulfilment of its duties as the National Meteorological Service for the U.A.R., the Meteorological Department issues several reports and publications on weather, climate and agrometeorology. The principal publications are described on this page.

Orders for publication should be addressed to :
“The Director General, Meteorological Department, Kubri-el-Qubbeh—CAIRO”.

THE DAILY WEATHER REPORT

This report is printed daily in the Meteorological Department. It contains surface and upper air observation carried by the relevant networks of the Republic and made at the four main synoptic hours of observation (00, 06, 12 and 18 U.T.) ; as well as ship observations over the Eastern Mediterranean and north Red Sea made at the same times.

It also contains two surface synoptic charts at 00 and 12 U.T. and two upper air charts for the standard isobaric surfaces 700 & 500 mbs. at both 00 and 12 U.T.

In compliance with resolution 8 (EC-XIII) of WMO, foreign upper air data included in Cairo Subregional Broadcast are also given in this report.

THE MONTHLY WEATHER REPORT

First issued in 1909, the Monthly Weather Report served to give a brief summary of the weather conditions that prevailed over Egypt during the month, with a table showing the mean values for few meteorological elements and their deviation from the normal values. From 1954 to 1957 this report was in a rapid state of development and extension resulting into a voluminous report on January 1958 giving surface, upper air, and agro-meteorological data for U.A.R.

THE AGRO-METEOROLOGICAL ABRIDGED MONTHLY REPORT

Gives a review of weather experienced in the agro-meteorological stations of the U.A.R. as well as monthly values of certain elements.

THE ANNUAL REPORT

This report gives annual values and statistics for the various meteorological elements, together with a summary of the weather conditions that prevailed during all months of the year.

CLIMATOLOGICAL NORMALS FOR EGYPT

The normals, long averages and statistical data are given in one edition for stations in Egypt from the date of opening of each station up to 1945. A new voluminous edition was issued in March 1968 which brings normals and mean values up till 1960.

*Printed at the General Organisation
for Government Printing Offices, Cairo
Under-Secretary of State*

ALY SULTAN ALY
Chairman of the Board of Directors

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FOREWORD

Since 1909 the Meteorological Department of Egypt has been issuing regularly the Monthly Weather Report, giving a brief summary of the weather conditions prevailing over Egypt during the month. These reports used to include a table giving limited climatological data for some selected surface observations.

On January 1954, the Monthly Weather Report has been revised and the general summary of the weather conditions has been extended to give a more detailed description of the synoptic situations and the associated weather prevailing during the month.

On February 1955 a further extension took place, the general summary of the weather conditions has been classified into different items to give more comprehensive information. More detailed surface climatological tables for selected stations and table for miscellaneous weather phenomena have been added to the Report.

On January 1956, the climatological tables included in the Report have been extended to include upper air climatological data to meet the increasing demand for this information.

In addition the full text of the monthly report of the standard observations taken at the Central Agro-Meteorological Station at Giza has been included in this Report instead of issuing it as a separate bulletin.

On January 1957, the Report has been completely revised, a new set of meteorological tables has been introduced to give, as far as possible, complete information for surface and upper air data from a more representative network of stations.

In addition, a general review of the observations taken in the fields of the plant breeding farm at Giza is included in the Report. The review gives a brief summary of the characteristic features of the different meteorological and micrometeorological elements of the month, more weight is given in this review to those elements which are of interest to agriculturists.

Starting from the Report of January 1958, the Monthly Weather Report for the U.A.R. included a detailed description of the synoptic situations and the associated weather experienced all over the Republic during the month. The Report included a new set of tables giving more detailed surface and upper air climatological data for selected stations in the Republic. The review of the Agrometeorological station at Giza and the normal observations made at the field of the station were also included in the Report.

As from January 1960, these tables have been totally revised and some new tables have been introduced to include more detailed climatological data.

In order to explain how the tables included in these Monthly Weather Reports have been compiled, detailed notes are included in the Report of January 1960 giving informations about the instruments used and their exposure, the methods of observations and the methods of computing the means and frequencies.

As from January 1964, the Monthly Weather Report was again totally revised. The number of meteorological stations appearing in the Report have been concentrated in the main synoptic stations working mostly continuously 24 hours. In addition

climatological data included in the Report will be confined to the monthly mean values, monthly totals, monthly frequencies and monthly absolute values. More specific climatological data have to be requested from the Meteorological Department.

Starting from the Report of January 1958, the monthly Weather Report of the U.A.R. carries serial reference in volume and number; each year carries a serial number in volume, Number I, being for January and 12 for December. The reference number of January 1958 is volume 1, number I.

M. F. TAHA

Under Secretary of State
Director General
Meteorological Department

Cairo, 5-10-1970

INTRODUCTION AND EXPLANATION OF THE TABLES

For the purpose of this Monthly Weather Report, the United Arab Republic is divided into six climatic districts as follows :

Number	District	Number	District
I	Mediterranean Area	IV	Upper Egypt
II	Lower Egypt	V	Western Desert
III	Cairo Area	VI	Red Sea Area

The data included in Tables A1, A2, A3, A4 & A5, are based on surface observations made at a representative selection of the basic network of synoptic stations. The data included in Tables B1, B2 & B3 refer to Upper Air observations. The data included in Tables C1, C2, C3, C4 & C5, are based on observations taken at the Central Agro-Meteorological station at Giza and the Agro-Meteorological stations at Tahrir, El Kasr and Kharga. The observation field at Giza is divided into several plots, each of area about 400 to 600 square metres, two of these plots are used for standard observations running throughout the whole year, the first serves as a dry and bare field, the second as a wet field covered with grass (libia). The observation fields at Tahrir, El Kasr and Kharga are considered for the moment as dry and bare fields. At Kharga Oasis, the observation field is of the size of about 4000 - 6000 square metres.

The soil characteristics of these fields are :

	EL KASR	TAHIRIR	GIZA	KHARGA	BAHTIM
Top soil type	not available at present	Pure sand	Permeable clay	Sandy loam granular non-compact	not available at present
Top soil depth	„	More than 3 metres.	More than 1.5 metres	20 cms.	„
Sub soil type	„	Pure sand	Clay loam and loam	Platy clay non-compact	„
Slope of ground and its direction	„	½ % towards East & North	Flat (0-0.3%)	Flat (0-0.3%)	„
Level of water table	„	More than 5 metres	1.0-1.5 m. approximately.	More than 5 metres	„

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Except for the wind speed which is expressed in knots, the metric units are used throughout this report and are as follows :

- The atmospheric pressure is expressed in millibars (one millibar = 1000 dynes per square centimetre = the pressure due to 0.7501 millimetre of mercury at 0°C at latitude 45°).
- Air and soil temperatures in degrees celsius (°C),
- Relative humidity (%),
- Rainfall in millimetres,
- Snow depth in centimetres,
- Duration of bright sunshine in hours,
- Sky cover in octas,
- Evaporation in millimetres,
- Altitude of pressure surface in geopotential metres,
- Mean wind speed of the whole day, and of the day - time and the night - time intervals in metres per second,
- (Solar + Sky) radiation in gram-calories per centimetre square,
- Vapour pressure in millimetres.

TABLE A1.— Monthly values of the Atmospheric Pressure, Air Temperature, Relative Humidity, Bright Sunshine Duration & Piche Evaporation

Atmospheric Pressure.

The monthly mean values of the daily atmospheric pressure corrected to Mean Sea Level (M.S.L.) are the arithmetic means over the month of their corresponding daily hourly values or of the daily observations taken at the 8 synoptic hours (00,03, 06, 09, 12, 15, 18 & 21 UT). The atmospheric pressure is measured by mercury barometers installed indoors; The Mean Sea Level Pressure (M.S.L.) is the barometer reading corrected for the height of the barometer cistern above or (below) the Mean Sea Level at the station. Corrections for index, temperature and latitude have been applied to the barometer readings before reduction to M.S.L. Deviations from normals appear besides monthly mean values in a separate column.

Air Temperature.

The monthly mean values of the maximum (A) and of the minimum (B) air temperatures are computed from their corresponding daily routine values observed over the month. The maximum (mercury) and the minimum (alcohol) thermometers are freely exposed in the louvred screens with their bulbs at a height of 160 to 170 centimetres above the ground. Deviations from normals appear besides monthly mean values.

The monthly mean values of (A + B)/2 are computed from their corresponding daily calculated values over the month.

The monthly mean values of the dry and of the wet bulb air temperatures are the arithmetic means over the month of their corresponding daily hourly values or of their corresponding values at the 8 synoptic hours (00,03, 06, 09, 12, 15, 18 & 21 UT). The dry and wet bulb thermometers used are of the mercury type and are freely exposed in sloping double roofed louvred screens with their bulbs at a height of 140-150 centimetres above the ground. Deviations from normals appear besides monthly mean values in a separate column.

Relative Humidity

The mean daily R. Humidity during the month is derived from the mean daily values of the dry and wet bulb temperatures using Jellink's Psychrometer Tables (Liepzing 1911). The mean daily values of the dry and wet bulb air temperatures are as indicated in the last paragraph. No corrections for wind speeds or atmospheric pressure are applied. Deviations from normals appear besides monthly mean values in a separate column.

Bright Sunshine Duration

The actual duration of bright sunshine for the month is the sum of the actual daily bright sunshine durations. The total possible duration for the month is the sum of the daily calculated periods between sunrise and sunset. In calculating the possible duration of sunshine for a given day, the periods of cut-off for that day caused by obstacles, such as mountains are eliminated from the possible duration with an ideal flat horizon. In case of stations where the record of day or more is or are missing, the total actual duration is given between brackets and a note is added at the end of the table giving the actual number of records (days) used in summing up this total actual. In such cases the corresponding total possible duration is also given in brackets and it is the sum of the possible duration of the days of the available records. The percentage of the actual to the possible duration appears besides the total possible values in a separate column. The duration of bright sunshine is measured by the Campbell-Stokes sunshine recorders which are suitably exposed.

Evaporation (Piche)

The monthly mean value of Piche evaporation is computed from its daily routine values observed at 0600 UT over the month. Evaporation measurements are taken once daily at 0600 UT and give the evaporation for the previous 24 hours. The evaporation readings are measured by a Piche tube freely exposed in sloping double roofed louvred screens, the evaporation disc has an effective area of 10.1 centimetres square, white in colour, and at a height of 140-150 centimetres above the ground.

TABLE A2.—Maximum & Minimum Air Temperatures

Higher and lower limits of both maximum and minimum temperatures and their corresponding dates of occurrences during the month are extracted from the daily readings of maximum (mercury) and minimum (alcohol) thermometers respectively. These dates are included for actual occurrences up to three; when exceeding three, the symbol * is added beside the last three dates.

The number of days during the month with maximum air temperature above 25°C, 30°C, 35°C, 40°C & 45°C and with minimum air temperature below 10°C, 5°C, 0°C & -5°C are included also in this table under separate columns.

The types and exposure of the maximum and of the minimum thermometers are as indicated in the notes on table A1.

The monthly mean values of grass minimum temperatures are the arithmetic means over the month of their corresponding daily values. The grass minimum temperatures are measured by ordinary minimum (alcohol) thermometers suitably exposed in the open air at the station field on special stands with their bulbs at a height of 5 centimetres above ground just touching the grass tops if there is any. Grass minimum thermometers readings are taken daily as a routine base at 0600 U.T. Deviations from normals appear besides mean values in a separate column.

TABLE A3.—Sky Cover & Rainfall

The monthly mean values of the total sky cover at the principal hours (00,06,12 & 18 UT) are computed from their corresponding daily routine values observed during the month. Mean values of the daily total sky cover is the arithmetic mean over the month of the daily hourly values or of the daily observations taken at the 8 synoptic hours (00, 03, 06, 09, 12, 15, 18 & 21 U.T). Sky cover is in octas.

The monthly total rainfall is the total rainfall during the month. The maximum daily rainfall and the number of days with rain < 0.1 and more than or equal 0.1, 1, 5, 10, 25 & 50 mms are extracted from the routine daily rainfall totals during the month. The rainfall for a given day is the amount of rain which has fallen during the 24 hours commencing at 0600U.T of that day; when the amount of rain which has fallen is not large enough to be measured (less than 0.1 mm) the term "Trace" is entered as (Tr.). The amount of rainfall measured includes the water equivalent of the rain water which has frozen after falling and the water equivalent of solid precipitation if any such as hail. Dates of maximum rain in 24 hours are included for actual occurrences up to three; when exceeding three, the symbol* is added besides the last three dates.

The amount of rainfall is normally measured by ordinary rain gauges. Some selected stations are also equipped with a recording type of rain gauge. The rim of both types of gauges are at a height of 90-100 centimetres above the ground.

TABLE A4.— Number of Days of Occurrence of Miscellaneous Weather Phenomena

This table gives the number of days of occurrence of rain, snow, ice pellets, hail, frost, thunderstorm, mist, fog, haze, thick haze, dust or sandrising, dust or sandstorm, gale, clear sky & cloudy sky. Except for rain (see notes on table A3) the days of occurrence of these weather phenomena are those days during which the phenomenon has occurred at any time between 2200, and 2200 U.T.

In compiling this table, the terminology and definitions of these different weather phenomena are as follows.

— A day of rain is the day during which the total amount of rainfall is 0.1 millimetre or more.

— A day of snow is the day during which snow or snow flakes or snow showers is or are observed even if it is or (they are) so small in quantity as to yield no measurable amounts of precipitation in the rain-gauge.

— A day of ice pellets is the day during which ice pellets are observed even if they are so small in quantity as to yield no measurable amounts of precipitation in the rain-gauge.

— A day of hail is the day during which either one or more of the following types of precipitation is or are observed, even if they are so small in quantity as to yield no measurable precipitation in the rain-gauge :

- Soft hail
- Small hail
- Hail stone

— A day of frost is the day during which frost is observed at the station.

— A day of thunderstorm is the day during which thunder is heard at the station whether lightning is seen or not. A day on which lightning is seen but thunder is not heard at the station is not counted as a day of thunderstorm.

— A day of mist is the day during which the surface horizontal visibility at the station has deteriorated and became equal to or greater than 1000 metres due to mist.

— A day of fog is the day during which the surface horizontal visibility at the station has deteriorated and fell below 1000 metres due to fog.

— A day of haze is the day during which the horizontal visibility at the station has deteriorated and became equal to or greater than 1000 metres due to haze.

— A day of thick haze is the day during which the horizontal visibility at the station has deteriorated and fell below 1000 metres due to thick haze.

— A day of dust or sandrising is the day during which the horizontal visibility at the station has deteriorated and became equal to or greater than 1000 metres due to dust or sandrising.

— A day of dust or sandstorm is the day during which the horizontal visibility at the station has deteriorated and fell below 1000 metres due to dust or sandstorms.

— A day of gale is the day during which the mean surface wind speed reached or exceeded 34 knots at the station for at least 10 minutes.

— A day of clear sky is the day on which the mean cloud amount at the station is less than 2/8.

— A day of cloudy sky is the day on which the mean cloud amount at the station is 6/8 or more.

As regards the last two items above, the mean cloud amount for a day is the mean of the 24 hours, the 8 synoptic hours or the 4 main synoptic hours of cloud observations according to the number of the routine observations taken at the station.

TABLE A5.— Number in Hours of Occurrences of Concurrent Surface Wind Speed and Direction Recorded Within Specified Ranges.

The elements used in preparing this table are the mean hourly values of the surface wind speed and the corresponding mean hourly values of direction taken from the daily records of the surface wind instruments installed at the station. These mean hourly values are extracted for every hour of each day of the month and they refer to a period of 60 minutes centred at the hour.

The number in hours of occurrences of the surface wind falling within the ranges of speed and direction indicated in the table is the number of cases when the mean hourly values of the surface wind as defined have satisfied these ranges.

The number in hours of "variable" winds is the number of cases where the surface wind showed no definite direction over the period of the 60 minutes centred at the hour or when the wind vane was sticking over that period due to the lightness of the wind and not responding to the variation in wind direction; in such cases the mean wind speed over this period is normally less than 5 knots. The number in hours of "calm" winds is the number of cases where the surface wind has a mean speed of less than one knot over that period, whatever the mean wind direction over the same period is. The number in hours during which the recording instrument failed to record over the whole month is given under a separate column.

The instruments used for recording the surface wind are of the Dines Pressure Tube Anemograph.

This table follows the general lines of Model B of chapter 12 part IV of the WMO Technical Regulations 1959. The ranges of wind speed are (1-10), (11-27), (28-47) knots and 48 knots or more; the ranges for wind direction are twelve ranges of 30° each, beginning with the range (345°-014°) as being the true north.

This table gives the following data :

- The total number in hours of simultaneous occurrences of surface wind satisfying the specified ranges of speed and direction during the month,
- The total number in hours of occurrences of surface wind [satisfying the specified ranges of speed during the month irrespective of their direction,
- The total number in hours of occurrences of surface wind blowing from the specified ranges of direction during the month irrespective of their speed.

TABLE B1. —Upper Air Climatological Data

The routine upper air observations are taken at 0000 and 1200 U T , a separate table of this type is prepared for each hour. The number of cases the height of each of the pressure surfaces indicated in the table has been attained during the month, and the number of cases the temperatures and the dew points have been observed at each of these surfaces are given in the table against each element under column (N).

The monthly mean values of the altitude, temperature and dew point at each of these pressure surfaces are the arithmetical means of the corresponding daily values over the number of cases (N) indicated against each element.

The instruments used are of the radiosonde modulating frequency recording type; the types of transmitters used do not need to apply any corrections for radiation.

This table follows the general lines recommended by the commission for climatology of the World Meteorological Organization Rec. 34 (CCL-1); it gives the following data for the hour of observation indicated at the top of the table :

- The number of cases the height of each of the pressure surfaces has been attained during the month and the number of cases the temperature and dew point at these surfaces have been observed,
- The monthly mean values of the atmospheric pressure corrected to the ground level of the station (H); the highest and lowest values of this pressure observed during the month,
- The monthly mean values of the air temperature and of the dew point at the surface; the highest and lowest values of the surface air temperature observed during the month,
- The monthly mean, the highest and the lowest values of the altitude for each of the pressure surfaces,
- The monthly mean, the highest and the lowest values of air temperature; and the mean dew point at each of the pressure surfaces.

TABLE B2. — Mean and Extreme Values of the Freezing Level and the Tropopause; The Highest Wind Speed in the Upper Air.

The routine upper air observations are taken at 0000 and 1200 UT ; a separate table of this type is prepared for each hour as indicated in the notes on table B1. The number of cases the altitude of the freezing level and of the first tropopause have been attained during the month and the number of cases the pressures and the dew points or temperatures have been observed at these levels are given in the table against each element in the (N) box.

The monthly mean values of the altitudes of the freezing level and of the first tropopause and the monthly mean values of the pressures and of the dew points or temperatures at each of these levels are the arithmetical means of the corresponding daily values over the number of cases (N) indicated in the box of each element.

The first tropopause is determined in accordance with the definition adopted by the Executive Committee of the World Meteorological Organization Resolution 21 (Ec - IX).

This table is based on wind observations taken by the SCR — 658 or the Metox radiotheodolites working simultaneously with the radiosonde observations. The types of radiosonde instruments used are given in the notes on table B1.

This table gives the following data for each hour of observation indicated at the top of the table:

— The number of cases the freezing level has been attained during the month and the number of cases the pressure and dew point have been observed at this level.

— The number of cases the altitude of the first tropopause has been attained during the month and the number of cases the pressure and the temperature have been observed at this level,

— The monthly mean values of the altitude, pressure and dew point of the freezing level,

— The altitudes, pressures and dew points of the highest and lowest freezing level observed during the month

— The monthly mean values of the altitudes, pressures and temperatures of the first tropopause,

— The altitudes, pressures and temperatures of the highest and lowest first tropopause observed during the month,

-- The direction and speed of the highest wind speed observed during the month, the altitude at which this wind has been observed.

TABLE B3.—Number of Occurrences of Wind Direction Within Specified Ranges and the Mean Scalar Wind Speed at the Standard and Selected Pressure Surfaces

The routine upper air observations are taken at 0000 and 1200 U.T. A separate table of this type is used for each station.

The mean scalar wind speed "ffm" of winds blowing from each range of directions at a given pressure surface, is the arithmetical mean of the corresponding daily values of wind speed for the number of cases "N" during the month.

The term "Calm" is used in this table to denote wind speed of less than one knot.

This table is based on the wind observations taken at the station as indicated in the notes on table B2.

This table, as in the case of table B1, follows the general lines recommended by the commission for Climatology of the World Meteorological Organization REC. 34 (CCL-I); the ranges of wind direction used are twelve ranges of 30° each beginning with the range (345°—014°) as being the true north. It gives the following data for the hour of observation indicated :

— The number of cases (N) the wind has been observed from the specified ranges of direction at the surface of the station and at the different pressure surfaces during the month.

— The total number of cases (TN) the wind has been observed at the surface of the station and at the different pressure surfaces during the month irrespective of the wind direction,

— The mean scalar wind speeds (ffm) blowing from the specified ranges of direction at the surface of the station and at the different pressure surfaces,

— The number of cases of "calm" winds at the surface of the station and at the different pressure surfaces,

— The mean scalar wind speeds at the surface of the station and at the different pressure surfaces blowing from all directions.

AGRO METEOROLOGICAL DATA

Reviews of Agrometeorological Stations at El-Kasr, Tahrir, Giza, Bahtim & Kharga.

The monthly review of all agrometeorological elements that have been observed at each agro-meteorological station includes a general summary of pronounced weather phenomena that prevailed during the month together with a comparison between the monthly values of this year and last year of specified elements that are of great interest to agriculturists as well as to agrometeorologists. For some elements, when observations are of a long time, departure from normal values appears also in the monthly review.

During winter, the monthly review includes normally the days of minimum air temperature below 0°C at the height of five centimeters above the ground

TABLE C1 -- Air Temperature at 1½ Metres Above Ground

The monthly mean values of the maximum, minimum, night-time mean, day-time mean and mean of day of air temperatures are the arithmetic means over the month of their corresponding daily values. The mean air temperature of a day is the mean of the eight values of the dry bulb temperature occurring at each of the principal and secondary observation hours, the value at 0000, 0300, & 2100 U.T. being extracted from the record of the dry bulb thermometer of a mercury in steel hygograph, except at Kharga where they are obtained from visual readings.

The night-time mean temperature of a day is the mean temperature for the period from sunset of the previous day to sunrise of the same day. The day-time mean temperature refers to the period from sunrise to sunset of the same day. Both night-time and day-time mean temperatures are computed from empirical formulae, which may vary from month to month but are common for all centres. These formulae were found by trial comparison with true means of the year 1966. The errors were never permitted to reach a whole degree, and usually stayed equal to or lower than 0.5°C.

The duration of air temperatures above a specified limit of temperature is obtained graphically from the same recording charts, daily to the nearest whole hour.

The maximum (mercury), the minimum (alcohol) and the dry bulb (mercury ventilated) thermometers are freely exposed in louvred Stevenson screens of the Egyptian type with their bulbs at a height of 190 - 195 centimetres above ground for the maximum and minimum thermometers, and 170 cms approximately for the dry bulb thermometer ; the recording thermometer used is of the bi-metallic type and is exposed in a similar screen ; the height of the bi-metallic piece is 165 centimetres approximately above the ground

TABLE C 2.—Extreme Values of Maximum & Minimum Air Temperatures at 1½ metres above Ground, Absolute Minimum Air Temperature at 5 cms above Ground over Different Fields.

The extreme values of maximum and minimum air temperatures at 1½ metres above ground and of minimum air temperatures at 5 cms above ground over dry and grass fields are extracted from their routine values. Dates of occurrences are included in separate columns beside the extreme value. Extreme values of maximum & minimum air temperature at 1½ metres include the Highest & Lowest limits of the daily corresponding routine values during the month.

The thermometer used for minimum air temperature at 5 cms above ground is of the ordinary minimum type (alcohol) freely exposed in the open air and mounted on a wooden support, the height of the bulb is 5 centimetres approximately above ground over the field.

TABLE C 3.—(Solar + Sky) Radiation, Duration of Bright Sunshine, Relative Humidity, Vapour Pressure at 1½ meters above Ground, Evaporation & Rainfall.

The monthly total values of the (solar + sky) Radiation, Bright Sunshine duration, Evaporation & Rainfall are the sums of their corresponding daily values for the month. The monthly mean values of the (Solar + Sky) Radiation, Relative Humidity & Vapour pressure at 1½ metres and Evaporation are the arithmetic means of their corresponding daily values for the month respectively.

The (solar + Sky) Radiation is obtained from the records of a Robitzsch Actinograph ; the Robitzsch values at Giza and Tahrir are regularly compared with the records of an Epply pyrheliometer installed at the station. The sensitive elements of the Robitzsch Actiongraph and of the Epply pyrheliometer are at 100 cms approximately above the ground.

The types of instruments used for the measurement of the duration of bright sunshine, their exposure and the evaluation of the durations are as given in the notes on table A1.

The relative humidity and vapour pressure values are derived from the readings of ventilated dry and wet bulb mercury thermometers freely exposed in the screen using the Aspirations psychrometer Tafeln of the Deutschen Wetterdienst 1955. The height of the bulbs is 170 cms approximately above the ground.

The mean relative humidity or vapour pressure for a given day is obtained from the eight principal and secondary observation values which are extracted from the readings of the dry and wet bulb thermometers, the values at 0000, 0300, and 2100 U.T. being extracted from the records of the mercury in steel hygrograph except at Kharga where these values are obtained from visual readings of the dry and wet bulb thermometers

The monthly values of the relative humidity or vapour pressure are the means of the corresponding mean daily values during the month. The lowest value of the relative humidity and its date of occurrence are obtained from the records of a hair hygrograph exposed in the screen, the height of the hair is 170 centimetres approximately above the ground

The absolute maximum and minimum values of vapour pressure during the month are extracted from the values of the eight principal and secondary observations

Evaporation measurements are taken once daily at 0600 U.T. from a Piche tube and also a class "A" evaporation pan and give the evaporation for the previous 24 hours. The Piche tube is installed in the screen with the dry bulb, maximum and minimum thermometers ; the colour and effective area of the evaporation disc are as given in the notes on table A1. The class "A" evaporation pan is of the type recommended by the commission of instruments and methods of observation of the World Meteorological Organization Rec 42 (CIMO-56) ; it is of a cylindrical shape, 25.4 centimetres deep, 120.6 centimetres in diameter (inside dimensions). The pan is freely exposed in the open air in the grass field at Giza and in the dry field elsewhere, its rim at a height of 41 centimetres above ground away from obstacles such as buildings or trees.

The types of instruments used for measuring the amount of rainfall, their exposure and the evaluation of these amounts are given in the notes on table A3

TABLE C 4.—Extreme Soil Temperature at Different Depths in Different Fields (cms)

The highest and lowest values of soil temperatures at the selected depths in dry & grass covered fields are extracted from their corresponding daily routine values.

The soil temperature readings are taken in the different fields at the specified depths ranging from 2 cms to 300 cms in each field as indicated in the table. These readings are taken regularly during the period from 0600 to 1800 U.T. according to the following schedule except at Kharga where the observations are as appropriate but extend in the period between 1800 & 0600 U.T.

- at 0600 U.T. and every three hours for the 2, 5 and 10 cms depths.
- at 0600 U.T. and every six hours for the 20 and 50 cms depths.
- at 1200 U.T. for the 100 and 200 cms. depths.
- at 0900 U.T. once every 3 days for the 300 cms depth.

The thermometers used are of the Fuess or the Friedrich types.

TABLE C 5.—SURFACE WIND.

The monthly values of the daily mean, the night time mean and of the day time mean of the surface wind speed is the arithmetic mean of their corresponding daily evaluated values for the month respectively. The mean wind speed of the day is computed for the period of 24 hours from 1800 U.T. of the previous day; the night-time mean wind speed of the day is obtained from the total run of air during the period 1800 U.T. of the previous day to 0600 U.T. of that day; the day-time mean is similarly computed for the period 0600 to 1800 U.T. of the same day. The type of the wind instrument used is of the run counter of the Lambrecht type; the cups of which are at $1\frac{1}{2}$ metres above the ground.

The number of days with surface wind speed reaching or exceeding specified values of velocities (≥ 10 Knots, ≥ 15 Knots, ≥ 20 Knots, ≥ 25 Knots, ≥ 30 Knots, ≥ 35 Knots and ≥ 40 Knots) for at least 5 minutes at any time between 2200 & 2200 U.T. irrespective of its direction are extracted from the daily routine analysis of surface winds records during the whole month. The daily records of the Dine pressure Tube Anemograph are used, the highest gust refer to the highest excursive made by the velocity pen on the records during the month.

LIST OF STATIONS APPEARING IN THE REPORT - SYNOPTIC AND CLIMATOLOGICAL STATIONS

District.	Station	Index Number II. iii	Latitude °N	Longitude °E	Elevation of the ground in metres (H or Ha)	Altitude of the Station in metres (H _{sp})	Altitude of the barometer cistern in metres above building above ground	Height of Wind recording instruments (metres) above ground	Synoptic Observations						Upper air observations P (Pilot Ballon) W (Radio wind) R (Radio Sonde)				Remarks			
									00	03	06	09	12	15	18	21	Half hourly obs. (h) (0000-2400)	00	06	12	18	
Mediterranean	Sallum	62	30°31'	25°11'	4.0	6.0	5.2	10	-	-	-	-	-	-	-	-	H	P	P	P	P	P
	Mersa Matruh (A)	306	31°20'	27°13'	28.3	30.0	30.0	8	-	-	-	-	-	-	-	-	H	RW	P	RW	P	P
	Alexandria (A)	318	31°12'	29°57'	3.4	7.0	6.8	10	-	-	-	-	-	-	-	-	H	P	P	P	P	P
	Port Said (A)	333	31°17'	32°14'	1.9	6.1	6.1	10	-	-	-	-	-	-	-	-	H	P	P	P	P	P
	El Arish	336	31°07'	33°15'	16.0	17.1	17.1	10	-	-	-	-	-	-	-	-	H	P	P	P	P	P
	Ghazza	338	31°30'	34°27'	9.7	15.7	15.7	10	-	-	-	-	-	-	-	-	H	P	P	P	P	P
Lower Egypt	Tanta	348	30°47'	31°00'	14.0	14.8	15.4	10	-	-	-	-	-	-	-	-	H	-	-	-	-	-
	Cairo Area	366	30°48'	31°34'	94.7	74.5	74.0	14	-	-	-	-	-	-	-	-	h	-	-	-	-	-
Upper Egypt	Helwan (A)	378	29°52'	31°20'	139.3	-	-	-	-	-	-	-	-	-	-	-	H	RW	W	RW	W	W
	Fayoum	381	29°18'	30°51'	22.0	23.3	23.2	10	-	-	-	-	-	-	-	-	H	-	-	-	-	-
	Minya (A)	387	28°05'	30°44'	29.0	40.0	44.2	7	-	-	-	-	-	-	-	-	H	P	P	P	P	P
	Asyout (A)	393	27°11'	31°06'	71.0	69.6	69.5	15	-	-	-	-	-	-	-	-	H	P	P	P	P	P
	Luxor (A)	405	25°40'	32°42'	94.9	88.5	88.4	7	-	-	-	-	-	-	-	-	H	P	P	P	P	P
	Aswan (A)	414	23°58'	32°47'	200.0	193.5	200.0	10	-	-	-	-	-	-	-	-	H	RW	P	RW	P	P
Western Desert	Siwa	417	29°12'	25°29'	-15.0	-13.5	-13.3	10	-	-	-	-	-	-	-	-	H	P	P	P	P	P
	Bahariya	420	28°20'	28°54'	128.0	129.5	129.6	-	-	-	-	-	-	-	-	-	H	P	P	P	P	P
	Faifra	423	27°03'	27°55'	90.0	91.8	92.1	-	-	-	-	-	-	-	-	-	H	P	P	P	P	P
	Dakhla	432	25°29'	20°00'	110.0	111.5	111.5	10	-	-	-	-	-	-	-	-	H	P	P	P	P	P
	Kharga	435	25°27'	30°32'	77.8	72.8	78.8	10	-	-	-	-	-	-	-	-	H	P	P	P	P	P
Red Sea	Tor	456	28°14'	33°37'	2.2	4.2	2.2	10	-	-	-	-	-	-	-	-	H	P	P	P	P	P
	Hurghada	462	27°17'	33°46'	1.0	2.8	2.8	8	-	-	-	-	-	-	-	-	H	P	P	P	P	P
	Quseir	465	26°08'	34°18'	8.9	11.3	11.3	12	-	-	-	-	-	-	-	-	H	P	P	P	P	P

GENERAL SUMMARY OF WEATHER CONDITIONS

JANUARY 1967

Remarkably cold weather during the third week, rainy in north of the Republic. A prevailing warm spell during the second week.

GENERAL DESCRIPTION OF WEATHER

The weather during this month was pronouncedly cold during the 3rd week, exceptionally warm during the 2nd week and generally cold otherwise. Rain fell during the cold periods over the northern coast and extended sometimes to Lower Egypt & Cairo districts. It was generally light to moderate, though heavy rain associated with thunderstorms fell on some days over scattered localities near coast, where its monthly amounts exceeded the normal values.

Scattered rising sand was reported mainly in association with frontal transits round the 7th, 13th, 17th and 28th. Early morning mist and fog developed frequently over Delta, Canal and Cairo areas.

PRESSURE DISTRIBUTION

The most outstanding features of pressure distribution on the surface maps during this month were :

- - The Siberian anticyclone.
- The Atlantic anticyclone and its south-east extension over North Africa.
- Deep low pressure systems passing through North Urasia.
- Eight secondary depressions passing through the middle latitudes between 30°, 45° N.

The first secondary depression was centered over the Gulf of Serte on the 1st and moved rapidly north-eastwards to East Mediterranean on the 2nd and filled up over Syria on the 3rd.

The second and third secondary depressions originated over Italy on the 3rd and 5th respectively, moved north-eastwards towards the Black Sea area and their southern troughs passed through East Mediterranean on the 5th and 8th.

The fourth depression developed over Spain on the 8th and moved rapidly north-eastwards reaching the Black Sea on the 10th when a fifth depression appeared over Spain also. It moved rather slowly eastwards reaching East Mediterranean on the 13th, then it continued its motion northeastwards afterwards.

The sixth secondary depression during this month developed over Asia Minor on the 16th. It remained stationary and deepened on the 17th, then it moved afterwards to the east while filling.

The seventh depression originated on the 20th over West Mediterranean, moved slowly north-eastwards reaching Italy on the 23rd, and filled up the next day. The transit of this depression was accompanied with a northward elongation of the Sudan trough during the period (21st — 23rd).

The 8th and last depression during this month developed on the 24th over Italy, moved slowly south-eastwards reaching Cyprus area on the 27th where it remained till the 28th, then it moved to the east.

The barometric pressure over U.A.R. was affected by the transits of the above mentioned secondary depressions or their southern troughs through East Mediterranean area, and showed corresponding oscillations with their minima round the 2nd, 5th, 8th, 13th, 17th, 23rd and 28th respectively.

The most important features of pressure distribution on the 700 & 500 mb upper charts were :

— Two upper low pressure systems, one over North Urasia and the other over North Atlantic.

— Five secondary upper troughs (or lows) passing through East Mediterranean and U.A.R. round the 2nd, 10th, 17th, 24th and 27th.

— Upper high pressure system over the subtropical latitudes.

SURFACE WIND

Winds blew over the northern parts generally from W & SW directions in advance of the travelling Mediterranean troughs and from W/NW in their rears. Over the central and southern parts Nly and NWly winds prevailed most days of the month.

Winds were light to moderate in general. They became fresh to strong on several days of the month over scattered parts mainly in the Mediterranean, Western Desert and Red Sea districts.

Gales were reported at Ghazza on the 28th and 29th.

TEMPERATURE

Four cold waves were experienced during this month, the 3rd of which was intense and prevailed most of third week. The second week was exceptionally warm.

Maximum temperature values ranged most days of the month between 14° and 19°C in the northern parts, between 15° and 21°C in the central parts and between 20° and 25°C in the southern parts.

The highest maximum temperature was 31.2°C reported at Aswan on the 14th.

Minimum temperature remained moderately below its normal most days of the month and its values ranged generally between 4° and 12°C in the northern and southern parts, and between 2° and 9°C in the central parts. It is noteworthy that minimum temperature fell to 0°C and lower during many nights of the month in scattered localities in Middle Egypt and the Western Desert.

The absolute minimum temperature was —3.4°C at Minya on the 22nd.

PRECIPITATION

Rain fell during the cold waves over the northern coast and extended sometimes southwards to lower Egypt and Cairo. It was light to moderate in general, though on some days in some localities of the northern coast it became heavy and associated with thunderstorms. The monthly totals exceeded normal values in scattered localities of the Mediterranean and Lower Egypt districts.

The highest daily rainfall was 45.0 mms at Amria (Mediterranean district) on the 19th.

The highest monthly rainfall was 74.9 mms at Rosetta.

M. F. TAHA

Under Secretary of State
Director General
Meteorological Department

Cairo, 5-10-1970

**Table A 1. - MONTHLY VALUES OF THE ATMOSPHERIC PRESSURE, AIR TEMPERATLRE,
RELATIVE HUMIDITY, BRICK SUNSHINE DURATION & PICHE EVAPORATION.**
JANUARY - 1967

STATION	Atmospheric Pressure (mbs) M.S.L.		Air Temperature °C										Relative Humidity %			Bright Sunshine Duration (Hours)			Piche Evaporation (mm) Mean
	Mean	D.F. Normal or Average	Maximum	D.F. Normal or Average	Minimum	D.F. Normal or Average	A + B 2	Dry Bulb	D.F. Normal or Average	Wet Bulb	D.F. Normal or Average	Mean	D.F. Normal or Average	Total Actual	Total Possible	%			
	(A)	(B)	(A)	(B)	(A)	(B)	Mean	Mean	Mean	Mean	Mean	Mean	D.F. Normal or Average						
Sallum	1020.4	+ 2.9	17.5	- 1.4	9.2	- 0.0	13.4	12.9	- 1.3	8.8	- 1.5	54	- 4	-	-	-	8.0		
Mersa Matruh (A)	1020.9	+ 3.5	17.0	- 1.2	7.7	- 0.6	12.4	11.8	- 1.1	8.8	- 1.0	65	- 0	-	-	-	6.9		
Alexandria (A)	1020.3	+ 2.6	18.2	- 0.3	7.8	- 1.5	13.0	12.6	- 1.0	9.8	- 1.2	68	- 2	224.2	322.3	70	4.1		
Port Said (A)	1019.9	+ 2.5	16.8	- 1.3	11.4	- 0.0	14.1	13.9	- 0.4	11.3	- 0.6	71	- 1	240.1	322.3	74	4.7		
El Arish	1020.1	+ 2.4	18.1	- 1.2	7.9	- 0.6	13.0	12.5	- 1.2	9.9	- 1.1	70	- 1	-	-	-	3.6		
Ghazza	1019.7	+ 1.9	17.2	- 0.7	8.7	- 0.7	13.0	12.9	- 0.8	10.0	- 1.3	67	- 6	187.8	321.1	58	3.7		
Tanta	1019.7	+ 2.3	18.0	- 1.7	6.5	+ 0.3	12.2	11.7	- 0.9	9.1	- 0.9	69	- 1	228.0	323.4	71	2.8		
Cairo (A)	1020.7	+ 2.7	18.2	- 0.8	7.0	- 1.8	12.6	12.5	- 1.3	8.7	- 1.4	57	- 2	-	-	-	8.1		
Fayoum	1020.5	+ 2.2	19.7	- 0.7	4.2	- 2.1	.0	11.5	- 1.8	8.2	- 1.7	60	- 1	-	-	-	3.0		
Minya (A)	1021.2	+ 2.6	19.5	- 1.2	1.3	- 2.7	10.4	10.6	- 1.3	6.3	- 1.9	48	- 10	289.9	328.8	88	4.4		
Assyout (A)	1020.7	+ 2.2	19.2	- 1.6	5.0	- 1.8	12.1	11.6	- 2.0	7.0	- 1.4	46	0	-	-	-	8.1		
Luxor (A)	1019.5	+ 2.4	21.9	- 1.2	4.2	- 1.4	13.0	12.9	- 1.3	8.4	- 1.1	50	- 2	-	-	-	5.2		
Aswan (A)	1019.0	+ 2.0	22.3	- 1.9	6.8	- 1.6	14.6	14.3	- 1.7	9.2	+ 0.1	35	+ 2	-	-	-	9.0		
Siwa	1021.7	+ 3.0	18.6	- 1.1	4.0	- 0.3	11.3	10.9	- 1.0	7.0	- 0.9	53	+ 1	-	-	-	5.3		
Bahariya	1021.6	+ 3.0	19.5	- 0.5	3.7	- 0.8	11.6	11.7	- 1.1	6.4	- 1.9	39	- 11	-	-	-	4.9		
Farafra	1022.9	+ 2.6	18.8	- 2.0	1.3	- 2.1	10.0	9.8	- 2.8	5.6	- 1.0	47	+ 5	-	-	-	6.8		
Dakhta	1022.1	+ 4.0	19.9	- 1.6	0.8	- 3.5	10.4	10.2	- 2.3	5.5	- 1.5	43	+ 6	-	-	-	7.2		
Kharga	1020.6	+ 2.6	20.8	- 0.4	3.7	- 2.2	12.2	12.6	- 1.6	6.7	- 2.1	40	- 5	318.7	334.0	98	9.5		
Tor	1019.4	+ 2.3	20.0	- 1.1	7.9	- 1.1	14.0	14.6	- 1.2	9.7	- 1.6	49	- 10	-	-	-	9.5		
Hurghada	1018.8	+ 2.1	20.6	- 0.2	9.1	- 0.6	14.8	14.8	- 1.1	9.3	- 1.7	44	- 8	-	-	-	12.0		
Quseir	1019.1	+ 2.6	21.2	- 1.4	13.0	- 0.8	17.1	17.2	- 1.1	11.5	- 1.4	46	- 3	-	-	-	12.3		

Table A2.— MAXIMUM AND MINIMUM AIR TEMPERATURES

JANUARY — 1967

Station	Maximum Temperature °C										Gross Min. Temp.	Minimum Temperature °C												
	Highest		Date	Lowest		Date	No. of Days with Max-Temp.					Mean	Days from Normal	Highest		Date	Lowest		Date	No. of Days with Min. Temp.				
	>25	>30		>35	>40		>25	>30	>35	>40	>45			>25	>30	>35	>40	>45		<10	<5	<0	<-5	
Sallum	23.0	13	13.2	18	0	0	0	0	0	0	0	8.6	—	13.9	12	6.5	25	23	0	0	0	0		
Mersa Matruh (A)	23.0	13	11.4	20	0	0	0	0	0	0	0	10.7	29	4.7	22	29	1	0	0	0	0	0		
Alexandria (A)	22.3	12	14.0	20	0	0	0	0	0	0	0	12.9	28	3.4	22	29	4	0	0	0	0	0		
Port Said (A)	19.3	14	12.4	19	0	0	0	0	0	0	0	6.8	—	13.8	7	7.2	22	6	0	0	0	0		
El Arish	24.4	13	12.8	29	0	0	0	0	0	0	0	9.2	—	12.7	14	1.6	23	26	3	0	0	0		
Ghazza	21.8	14	12.2	21	0	0	0	0	0	0	0	6.1	—	15.4	14	3.5	24	25	3	0	0	0		
Tanta	22.3	12	13.5	21	0	0	0	0	0	0	0	—	—	8.9	6	2.4	22	31	8	0	0	—		
Cairo (A)	25.0	13	13.4	21	0	0	0	0	0	0	0	—	—	12.0	14	1.2	23	30	4	0	0	0		
Fayoum	22.7	14	15.8	21	0	0	0	0	0	0	0	2.5	—	8.2	20	0.0	23	31	20	0	0	0		
Minya (A)	25.5	13	15.4	21	1	0	0	0	0	0	0	-1.0	—	4.0	16	-3.4	22	31	31	5	0	0		
Assyout (A)	28.2	13	15.5	21	1	0	0	0	0	0	0	2.7	—	7.8	14	1.0	22	31	11	0	0	0		
Luxor (A)	28.8	14	17.6	18	4	0	0	0	0	0	0	-3.5	—	10.0	14	1.4	30	30	23	0	0	0		
Aswan (A)	31.2	14	17.8	18	4	2	0	0	0	0	0	—	—	14.4	15	3.4	22	28	5	0	0	0		
Siwa	24.8	13	15.0	18	0	0	0	0	0	0	0	1.0	—	9.3	13	0.8	10	31	19	0	0	0		
Bahariya	26.8	13	15.4	21	1	0	0	0	0	0	0	1.1	—	8.5	27	-2.0	23	31	23	1	0	0		
Farafra	28.1	13	15.2	20-21	1	0	0	0	0	0	0	0.9	—	8.4	16	-3.3	23	31	27	7	0	0		
Dakhla	28.9	13	16.2	21	2	0	0	0	0	0	0	0.8	—	7.8	16	-2.4	22	31	28	14	0	0		
Kharga	27.8	13	16.4	21	2	0	0	0	0	0	0	1.3	—	8.2	15	1.0	24	31	24	0	0	0		
Tor	24.3	14	16.5	19	0	0	0	0	0	0	0	—	—	14.8	14	3.6	23	27	4	0	0	0		
Hurghada	25.6	14	16.4	21	1	0	0	0	0	0	0	—	—	13.4	15	6.0	19-23	19	0	0	0	0		
Quseir	26.3	14	16.7	21	1	0	0	0	0	0	0	12.4	—	19.3	15	10.0	19	0	0	0	0	0		

Table A 3.—SKY COVER AND RAINFALL

JANUARY — 1967

Station	Mean Sky Cover Oct.					Rainfall mms.										
	00	06	12	18	Daily	Total	D. From	Max. Fall in one day		Number of Days with Amount of Rain						
	U.T.	U.T.	U.T.	U.T.	Mean	Amount	Normal	Amount	Date	<0.1	≥0.1	≥1.0	≥5.0	≥10	≥25	≥50
Sallum (A)	2.9	3.4	4.6	3.0	2.6	27.2	+ 8.4	15.8	1	0	7	6	1	1	0	0
Mersa Matruh (A)	2.9	4.0	4.5	3.6	3.7	32.0	+ 1.3	8.3	10	1	12	9	2	0	0	0
Alexandria (A)	3.7	4.5	4.8	3.9	4.3	67.2	+18.1	15.7	17	3	10	8	6	3	0	0
Port Said (A)	2.4	2.7	3.1	2.6	2.0	6.3	- 6.2	3.2	19	3	9	2	0	0	0	0
El Arish	3.3	3.4	3.1	3.1	2.5	42.1	+22.2	20.2	20	0	7	6	3	2	0	0
Ghazza	3.3	3.3	3.7	3.4	2.6	159.3	+79.4	42.3	18	0	11	10	9	6	2	0
Tanta	1.1	2.7	3.6	1.5	1.8	12.3	+ 2.1	7.7	24	0	7	2	1	0	0	0
Cairo (A)	0.9	2.4	3.7	1.7	1.6	1.0	- 4.1	1.0	28	1	1	1	0	0	0	0
Fayoum	—	1.4	2.6	1.7	—	tr.	- 1.0	tr.	20.28	2	0	0	0	0	0	0
Minya (A)	0.1	0.7	1.5	0.3	0.5	0.0	- 0.4	0.0	—	0	0	0	0	0	0	0
Assyout (A)	0.5	0.6	1.1	0.4	0.5	0.0	- tr.	0.0	—	0	0	0	0	0	0	0
Luxor (A)	0.3	0.8	1.2	0.7	0.5	0.0	- 0.1	0.0	—	0	0	0	0	0	0	0
Aswan (A)	0.7	1.3	1.5	1.0	1.2	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Siwa	1.7	1.6	2.9	1.7	2.1	1.5	+ 0.6	1.3	1	0	2	1	0	0	0	0
Bahariya	0.8	1.3	1.6	0.8	0.8	0.0	- tr.	0.0	—	0	0	0	0	0	0	0
Farafra	—	0.8	1.4	0.6	—	0.0	- tr.	0.0	—	0	0	0	0	0	0	0
Dakhla	0.1	0.6	0.9	0.5	0.4	0.0	- tr.	0.0	—	0	0	0	0	0	0	0
Kharga	0.2	0.5	0.9	0.1	0.5	0.0	- 0.1	0.0	—	0	0	0	0	0	0	0
Tor	0.6	1.7	1.5	0.8	0.8	0.0	- 1.5	0.0	—	0	0	0	0	0	0	0
Hurghada	0.3	1.4	1.4	0.5	0.8	0.0	- tr.	0.0	—	0	0	0	0	0	0	0
Quseir	1.0	1.6	2.6	0.8	1.5	0.0	- tr.	0.0	—	0	0	0	0	0	0	0

Table A 4. -- DAYS OF OCCURRENCE OF MISCELLANEOUS WEATHER PHENOMENA.

JANUARY — 1967

Station	Precipitation				Frost	Thunderstorm	Mist Vis ≥ 1000 metres	Fog Vis < 1000 Metres	Haze Vis ≥ 1000 Metres	Thick Haze Vis < 1000 Metres	Dust or Sandstorm Vis ≥ 1000 Metres	Dust or Sandstorm Vis < 1000 Metres	Gale	Clear	Cloudy	
	Rain	Snow	Ice, Pellets	Hail										Sky	Sky	
Sallum (A)	8	0	0	0	0	0	0	0	0	0	4	0	0	0	12	5
Mersa Matruh (A)	12	0	0	0	0	0	0	0	0	0	3	0	0	0	10	6
Alexandria (A)	14	0	0	0	0	0	3	1	1	0	0	0	0	0	4	8
Paras Said (A)	9	0	0	0	0	0	6	0	0	0	0	0	0	0	21	3
Al Arish	9	0	0	0	0	0	0	0	0	0	3	0	0	0	11	2
Ghazza	11	0	0	0	0	0	0	0	0	0	0	0	2	0	10	6
Tanta	5	0	0	0	0	0	6	1	0	0	0	0	0	0	18	2
Cairo (A)	3	0	0	0	0	0	14	1	0	0	4	0	0	0	18	1
Fayoum	0	0	0	0	0	0	1	0	0	0	0	0	0	0	—	—
Minya (A)	0	0	0	0	0	0	4	1	0	0	0	0	0	0	28	0
Assyout (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29	0
Luxor (A)	0	0	0	0	0	0	0	0	9	0	0	0	0	0	28	0
Aswan (A)	0	0	0	0	0	0	0	0	0	0	3	0	0	0	26	0
Siwa	2	0	0	0	0	0	1	0	0	0	0	0	0	0	18	2
Bahariya	0	0	0	0	0	0	1	0	0	0	1	0	0	0	24	0
Farafra	0	0	0	0	0	0	0	0	0	0	0	0	0	0	—	—
Dakhla	0	0	0	0	0	0	0	0	0	0	1	0	0	0	30	0
Kharga	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	0
Tor	0	0	0	0	0	0	0	0	0	0	6	0	0	0	28	0
Hurghada	0	0	0	0	0	0	0	0	0	0	1	0	0	0	26	0
Quseir	0	0	0	0	0	0	0	0	0	0	2	0	0	0	21	0

Table A 5.—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES JANUARY — 1967

Section	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated												All directions
					345	015	045	075	105	135	165	195	225	255	285	315	
					014	044	074	104	134	164	194	224	254	284	314	344	
Sallum	0	4	19	1-10	19	15	12	6	7	4	7	13	22	61	59	33	258
				11-27	7	0	5	0	0	0	8	52	102	154	124	11	463
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	26	15	17	6	7	4	15	65	124	215	183	44	721
Mersa Matruh	4	0	3	1-10	20	14	6	8	4	7	11	43	52	58	22	22	267
				11-27	37	15	4	1	1	2	16	71	97	151	39	33	467
				28-47	2	0	0	0	0	0	0	1	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	59	29	10	9	5	9	27	115	149	209	61	55	737
Alexandrie	7	0	20	1-10	25	11	18	14	41	34	45	125	52	56	43	22	486
				11-27	17	12	8	1	0	0	0	13	46	50	42	42	231
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	42	23	26	15	41	34	45	138	98	106	85	64	717
Port Said	12	4	0	1-10	32	24	30	18	25	23	18	45	62	80	27	35	419
				11-27	7	11	9	1	0	0	8	32	91	91	28	20	298
				28-47	0	0	0	0	0	0	0	0	0	0	3	0	11
				≥48	0	0	0	0	9	0	0	0	0	0	0	0	0
				All speeds	39	35	39	19	25	23	26	27	161	171	58	55	728
Tanta	99	0	0	1-10	32	23	20	12	24	31	17	21	43	158	146	87	614
				11-27	1	0	0	0	2	0	0	0	0	3	19	6	31
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	33	23	20	12	26	31	17	21	43	161	165	93	645
Fayoum	38	1	6	1-10	148	66	20	14	11	15	27	51	111	81	66	68	676
				11-27	0	7	1	0	0	0	0	0	3	7	3	2	23
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	148	73	21	14	11	15	27	51	114	88	69	68	699
Minya	33	162	1	1-10	105	12	1	1	4	34	14	3	9	30	60	173	446
				11-27	40	8	0	0	0	4	0	0	0	5	17	28	102
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	145	20	1	1	4	38	14	3	9	35	77	201	548
Asyout	0	0	83	1-10	11	3	4	9	14	9	4	0	86	248	125	62	575
				11-27	10	2	0	0	5	2	2	0	2	3	19	41	86
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	21	5	4	9	19	11	6	0	88	251	144	103	661

Table A 5 (contd)—NUMBER IN HOURS OF OCCURRENCE OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES
JANUARY — 1967

Station	calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated												All directions	
					345	015	045	075	105	135	165	195	225	255	285	315		
					/	/	/	/	/	/	/	/	/	/	/	/		
				014	044	074	104	134	164	194	224	254	284	314	344			
Ixor	7	2	4	1-10	91	91	52	38	23	51	120	44	23	29	67	99	728	
				11-27	0	0	0	0	0	0	0	0	0	0	0	0	3	
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	91	91	52	38	23	51	120	44	23	29	67	102	731	
Swan	1	0	7	1-10	212	234	6	3	1	0	2	0	0	0	3	2	46	509
				11-27	150	70	1	0	0	0	0	0	0	0	0	0	6	227
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	352	351	7	3	1	0	2	0	0	0	3	2	52	736
Wardha	17	54	0	1-10	21	18	33	47	34	29	42	39	92	186	62	25	628	
				11-27	0	0	0	0	0	0	3	3	5	9	16	9	45	
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	21	18	33	47	34	29	45	42	97	195	78	34	673	
Akhla	8	3	0	1-10	55	56	23	21	7	13	26	30	79	169	149	136	704	
				11-27	7	4	2	0	0	0	0	0	0	0	0	16	29	
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	62	60	25	21	7	13	26	30	79	169	149	152	733	
Harga	9	22	60	1-10	100	83	22	18	8	9	6	6	6	5	40	157	460	
				11-27	131	17	0	0	0	0	0	0	0	0	2	43	193	
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	231	100	22	18	8	9	6	6	6	5	42	266	653	
Arghada	0	0	1	1-10	26	6	6	2	4	16	5	0	3	18	51	12	149	
				11-27	127	0	1	0	4	3	0	0	0	0	30	268	148	
				28-47	4	0	0	0	0	0	0	0	0	0	0	9	13	
				All speeds	157	6	2	2	8	19	5	0	3	48	319	169	743	
Seir	0	1	0	1-10	55	32	12	5	5	6	5	5	9	156	102	30	422	
				11-27	95	3	2	0	0	0	0	0	1	26	51	142	320	
				28-47	1	0	0	0	0	0	0	0	0	0	0	0	1	
				All speeds	151	35	14	5	5	6	5	5	10	182	153	172	743	

Table B 1.—UPPER AIR CLIMATOLOGICAL DATA
JANUARY—1967

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Marsa Matruh 0000 U.T.	Surface . . .	10	*	*	*	10	10.6	12.8	8.0	10	6.9
	1000 . . .	10	221	262	194	10	11.2	12.9	9.0	10	6.9
	850 . . .	10	1554	1566	1532	10	—	3.1	—0.8	10	—2.9
	700 . . .	10	3095	3134	3061	10	—5.8	—2.8	—9.7	3	—12.7
	600 . . .	10	4286	4330	4236	10	—13.7	—10.2	—17.8	2	—23.0
	500 . . .	10	5645	5702	5571	10	—23.4	—21.7	—27.9	2	—33.6
	400 . . .	10	7237	7304	7165	10	—35.8	—33.3	—40.3	1	—45.5
	300 . . .	10	9190	9265	9076	10	—48.4	—41.8	—51.0	—	—
	200 . . .	8	11807	11862	11763	8	—54.9	—47.8	—57.8	—	—
	150 . . .	8	13652	13708	13607	8	—56.7	—54.1	—59.1	—	—
	100 . . .	6	16191	16245	16128	6	—63.9	—61.3	—67.0	—	—
	70 . . .	4	18400	18450	18360	4	—62.4	—59.5	—68.4	—	—
	60 . . .	3	19373	19418	19306	3	—61.4	—58.6	—66.0	—	—
	50 . . .	3	20488	20570	20418	3	—59.3	—56.2	—64.7	—	—
	40 . . .	—	—	—	—	—	—	—	—	—	—
	30 . . .	—	—	—	—	—	—	—	—	—	—
	20 . . .	—	—	—	—	—	—	—	—	—	—
	10 . . .	—	—	—	—	—	—	—	—	—	—
Helwan 0000 U.T.	Surface . . .	21	*	*	*	21	9.8	12.1	6.4	21	2.9
	1000 . . .	21	1005m.b.	1010m.b.	1000m.b.	21	9.1	12.3	6.3	21	3.6
	850 . . .	21	1514	1553	1473	21	2.0	6.8	3.7	18	—8.2
	700 . . .	21	3062	3109	3010	21	—6.6	1.3	—10.4	7	—18.0
	600 . . .	21	4261	4324	4185	21	—11.2	—4.1	—15.7	—	—
	500 . . .	21	5636	5718	5524	21	—20.8	—12.5	—28.3	2	—28.0
	400 . . .	21	7250	7410	7091	21	—31.9	—23.1	—37.4	1	—36.3
	300 . . .	21	9233	9466	9041	21	—43.7	—35.1	—49.9	1	—42.7
	200 . . .	20	11896	12209	11701	20	—54.3	—47.5	—61.9	—	—
	150 . . .	17	13709	14057	13524	17	—59.8	—52.4	—67.3	—	—
	100 . . .	14	16223	16582	16026	14	—65.4	—58.2	—69.3	—	—
	70 . . .	12	18404	18790	18180	12	—65.6	—61.3	—71.4	—	—
	60 . . .	12	19339	19740	19132	12	—63.7	—60.3	—67.5	—	—
	50 . . .	12	20469	20878	20250	12	—61.2	—56.0	—64.3	—	—
	40 . . .	10	21873	22265	21624	10	—59.4	—56.5	—61.9	—	—
	30 . . .	6	23588	23780	23420	6	—57.7	—54.0	—60.2	—	—
	20 . . .	4	26174	26283	26106	4	—55.3	—52.0	—59.2	—	—
	10 . . .	—	—	—	—	—	—	—	—	—	—
Aswan 0000 U.T.	Surface of station	8	*	*	*	8	8.4	11.6	6.7	8	—0.7
	1000 . . .	8	996m.b.	998m.b.	994m.b.	8	—	—	—	—	—
	850 . . .	8	161	176	143	8	7.7	11.7	3.3	6	—8.0
	800 . . .	8	1509	1526	1495	8	1.7	4.3	0.3	—	—
	700 . . .	8	3091	3110	3068	8	—5.6	—1.5	—8.1	—	—
	600 . . .	8	4315	4342	4283	8	—14.3	—11.2	—18.0	—	—
	500 . . .	8	5723	5727	5673	8	—23.8	—18.7	—28.5	—	—
	400 . . .	8	7392	7450	7321	8	—37.1	—33.5	—41.8	—	—
	300 . . .	8	9418	9535	9244	8	—54.7	—48.1	—57.7	—	—
	200 . . .	7	12148	12246	12004	7	—62.9	—58.4	—66.4	—	—
	150 . . .	7	13955	14034	13829	7	—69.7	—63.3	—74.0	—	—
	100 . . .	6	16394	16510	16257	6	—72.8	—69.0	—77.9	—	—
	70 . . .	5	18500	18600	18400	5	—88.5	—84.0	—71.7	—	—
	60 . . .	4	19401	19531	19287	4	—61.6	—68.0	—66.6	—	—
	50 . . .	4	20510	20620	20418	4	—60.8	—60.0	—61.5	—	—
	40 . . .	2	21948	22000	21895	2	—57.4	—55.9	—58.8	—	—
	30 . . .	2	23752	23814	23689	2	—53.2	—	—	—	—
	20 . . .	1	26413	—	—	1	—	—	—	—	—
	10 . . .	—	—	—	—	—	—	—	—	—	—

N = The number of cases the element has been observed during the month.

* The atmospheric pressure corrected to the elevation of the radiosonde station.

Table B 1 (contd.).—UPPER AIR CLIMATOLOGICAL DATA

JANUARY—1967

Station	Pressure Surface Millibar	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mersa Matruh (A) 1200 U.T.	Surface of station	10	1023m.b.	1026m.b.	1018m.b.	10	15.7	17.2	13.8	10	7.2
	1000	10	220	246	179	10	13.2	15.4	10.3	10	5.6
	850	10	1566	1588	1528	10	2.2	4.9	—1.5	10	—5.9
	700	10	3108	3136	3087	10	—4.7	—1.4	—7.6	—	—
	600	10	4304	4350	4276	10	—12.2	—8.4	—15.5	1	—22.0
	500	10	5670	5733	5629	10	—22.5	—19.0	—26.7	1	—32.2
	400	10	7270	7342	7214	10	—34.4	—28.8	—39.5	1	—42.0
	300	10	9236	9349	9147	10	—47.2	—42.7	—48.8	—	—
	200	8	11882	11976	11809	8	—52.2	—49.5	—55.2	—	—
	150	7	13726	13808	13647	7	—54.6	—51.9	—57.1	—	—
	100	6	16285	16338	16218	6	—62.1	—58.8	—65.9	—	—
	70	5	18474	18510	18400	5	—60.2	—56.8	—64.3	—	—
	60	3	19450	19471	19437	3	—58.1	—56.5	—59.4	—	—
	50	3	20607	20621	20599	3	—55.3	—53.7	—56.9	—	—
	40	2	22036	22042	22030	2	—53.8	—53.2	—54.3	—	—
	30	2	23896	23902	23890	2	—50.6	—50.4	—50.9	—	—
	20	2	26576	26592	26560	2	—43.9	—43.2	—44.6	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 1200 U.T.	Surface of station	23	1004m.b.	1009m.b.	1001m.b.	23	16.7	19.2	12.7	23	1.9
	1000	23	176	216	149	23	16.4	21.1	11.9	23	1.8
	850	23	1527	1566	1498	23	3.8	10.2	—1.2	19	—4.2
	700	23	3086	3149	3026	23	—2.1	3.9	—7.4	9	—18.2
	600	23	4295	4377	4230	23	—9.6	—4.4	—17.7	1	—24.8
	500	23	5680	5779	5595	23	—18.5	—13.3	—22.6	1	—28.3
	400	23	7311	7420	7226	23	—30.3	—26.2	—33.8	1	—31.4
	300	23	9304	9421	9181	23	—43.6	—37.3	—49.6	—	—
	200	23	11947	12096	11823	22	—53.4	—47.0	—59.1	—	—
	150	21	13805	13899	13714	21	—59.3	—55.1	—64.7	—	—
	100	19	16309	16416	16228	19	—65.3	—61.0	—70.3	—	—
	70	13	18492	18580	18370	13	—64.0	—59.6	—65.4	—	—
	60	12	19440	19521	19306	12	—62.8	—58.5	—65.2	—	—
	50	12	20571	20645	20424	12	—59.6	—55.5	—63.7	—	—
	40	10	21971	22049	21799	10	—56.3	—51.9	—62.0	—	—
	30	7	23799	23896	23603	7	—52.7	—49.4	—57.1	—	—
	20	4	26487	26533	26450	4	—49.1	—48.0	—50.4	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan 1200 U.T.	Surface of station	8	996m.b.	998m.b.	993m.b.	8	18.7	22.5	15.4	8	—1.4
	1000	8	160	176	132	—	—	—	—	2	—7.4
	850	8	1519	1542	1507	8	9.6	12.1	4.8	—	—
	700	8	3109	3139	3057	8	2.7	5.3	0.2	—	—
	600	8	4340	4384	4309	8	—4.1	—0.4	—7.2	—	—
	500	8	5755	5822	5713	8	—12.3	—8.0	—16.2	—	—
	400	8	7432	7541	7359	8	—22.7	—16.1	—29.3	—	—
	300	8	9514	9652	9386	8	—35.4	—31.2	—40.3	—	—
	200	7	12207	12389	12078	7	—53.7	—47.7	—57.1	—	—
	150	6	14057	14194	13953	6	—60.7	—54.8	—64.8	—	—
	100	6	16621	16630	16454	6	—70.5	—65.8	—75.6	—	—
	70	3	18674	18740	18636	3	—69.2	—64.5	—76.1	—	—
	60	1	19680	—	—	1	—62.3	—	—	—	—
	50	1	20813	—	—	1	—59.7	—	—	—	—
	40	1	22230	—	—	1	—52.0	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—

N = The number of cases the element has been observed during the month.

* The atmospheric pressure corrected to the elevation of the radiosonde station.

**Table B 2. MEAN AND EXTREME VALUES OF THE FREEZING LEVEL AND THE TROPOPAUSE.
THE HIGHEST WIND SPEED IN THE UPPER AIR**

JANUARY — 1967

Station	Freezing Level												First Tropopause												Highest wind speed				
	Mean				Highest				Lowest				Mean				Highest				Lowest				Temperature (°C)				
	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Direction (000—360)	Speed in Knots				
0000 U.T.	(N)	(N)	(N)										(N)	(N)	(N)														
	Mersa Matruh (A)	1830 (8)	825 (8)	-4.0 (7)	2680	740	—	1400	862	-2.1	10222 (6)	257 (6)	-55.4 (6)	11050	224	-58.1	8670	318	-51.6	12600	—	240	142						
	Helwan	1953 (21)	807 (21)	-6.5 (14)	3290	773	—	1080	899	-2.0	12601 (13)	196 (13)	-57.0 (13)	16350	92	-69.5	8110	344	-43.5	10250	267	270	150						
1200 U.T.	Aswan (A)	3401 (8)	674 (8)	— (1)	3720	647	—	3140	694	—	16825 (5)	94 (5)	-72.8 (5)	17708	80	-73.3	15380	119	-71.0	12720	—	240	150						
	(N)	(N)	(N)										(N)	(N)	(N)														
	Mersa Matruh (A)	1952 (10)	811 (10)	-7.6 (7)	2690	738	—	1380	868	-4.4	11433 (8)	249 (8)	-54.4 (8)	14640	130	-60.3	9750	278	-52.5	9450	—	260	165						
1800 U.T.	Helwan	2403 (23)	766 (23)	-6.1 (14)	3690	651	—	1420	863	-4.4	12145 (21)	204 (21)	-57.0 (21)	16375	100	-67.4	9040	305	-47.8	10240	260	240	148						
	Aswan (A)	3635 (8)	674 (8)	— (1)	4340	604	—	3140	694	—	15170 (3)	125 (3)	-68.6 (3)	16010	111	-72.5	13870	155	-64.6	11550	—	250	148						

Table B 3. - NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES.
MERSA MATRUH (A) JANUARY 1967

Time	Pressure Surface (Millibar.)	Wind between specified ranges of direction (000 - 360)*												Number of Calm winds	Total Number of Observations (TN)	Mean Scalar wind Speed (Knots)								
		345	015	045	075	105	135	165	195	225	255	285	315											
		014	014	074	104	134	164	194	224	254	284	314	344											
		N (ft)	N (ft)	N (ft)	N (ft)	N (ft)	N (ft)	N (ft)	N (ft)	N (ft)	N (ft)	N (ft)	N (ft)											
		m	m	m	m	m	m	m	m	m	m	m	m	m										
0000 U.T.	Surface	2	17	0	—	0	—	0	—	1	4	0	—	2	16	3	12	1	11	0	10	12		
	1000	3	19	0	—	0	—	0	—	1	7	0	—	0	—	2	20	2	24	1	20	9		
	850	2	20	0	—	0	—	1	13	0	—	1	11	0	—	0	—	2	18	3	27	6		
	700	1	11	0	—	0	—	0	—	0	—	1	4	1	18	0	—	0	—	4	34	2		
	600	0	—	0	—	0	—	0	—	0	—	0	—	2	8	0	—	0	—	2	24	5		
	500	0	—	9	—	0	—	0	—	0	—	0	—	0	—	1	15	3	27	3	31	0		
	400	1	12	0	—	0	—	0	—	0	—	0	—	0	—	1	27	0	—	2	10	3		
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	32	2	38	2	42	2		
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	81	4	68	0		
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	85	3	55	0		
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0		
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	56	0		
	60	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	22	0	—	0		
	50	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	24	0	—	0		
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
1200 U.T.	Surface	2	17	2	9	0	—	0	—	0	—	1	1	0	—	2	17	1	22	2	17	0	10	14
	1000	0	0	0	—	0	—	0	—	0	—	0	—	1	24	1	33	3	23	4	17	1	10	19
	850	2	10	0	—	0	—	0	—	0	—	0	—	1	15	1	26	3	24	3	17	0	10	18
	700	3	22	0	—	0	—	0	—	1	21	0	—	0	—	1	24	1	36	3	22	0	10	24
	600	2	30	0	—	0	—	0	—	0	—	1	22	0	—	2	18	3	33	1	9	0	9	25
	500	2	21	0	—	0	—	0	—	0	—	1	21	0	—	1	52	3	37	2	20	0	9	30
	400	0	—	0	—	0	—	0	—	0	—	1	5	2	67	1	60	4	39	1	40	0	9	44
	300	0	—	0	—	0	—	0	—	0	—	0	—	2	141	2	50	4	53	1	39	0	9	59
	200	0	—	0	—	0	—	0	—	0	—	0	—	1	70	3	84	2	70	0	—	0	6	77
	150	0	—	0	—	0	—	0	—	0	—	0	—	1	44	1	97	2	82	0	—	0	4	76
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	60	0	—	0	—	0	2	60
	70	—	—	—	—	—	—	—	—	—	—	0	—	—	—	—	—	—	—	—	—	—	0	
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0	
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0	
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0	
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0	
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0	
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0	

N = The number of cases the element has been observed during the month,

TN = The total number of cases the wind has been observed for all directions during the month,

Table B 3.(contd.)—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES.

HELWAN—JANUARY 1967

Time	Pressure Surface (Millibar.)	Wind between specified ranges of direction (000° - 360°)														Number of Calm winds	Total Number of Observations (T.N.)	Mean Scalar wind Speed (Knots)										
		345	015	045	075	105	125	165	195	225	315	285	255	284														
		014	044	074	104	134	164	194	224	254	344	314	284	284														
		N m	N m	N m	N m	N m	N m	N m	N m	N m	N m	N m	N m	N m														
0000 U.T.	Surface	0	—	5	7	5	12	1	4	1	5	0	—	0	—	1	4	0	—	1	9	2	6	5	21	6		
	1000	5	11	6	14	5	16	0	—	0	—	6	—	0	—	2	12	0	—	1	14	1	15	1	10	0	21	14
	860	1	23	1	14	0	—	1	14	0	—	0	—	0	—	3	15	0	—	4	10	4	30	7	13	0	21	14
	700	0	—	0	—	0	—	0	—	0	—	0	—	1	17	4	24	0	—	5	17	10	26	9	—	0	20	22
	600	0	—	0	—	0	—	0	—	0	—	0	—	2	37	3	42	6	28	6	36	4	26	0	21	32		
	500	0	—	0	—	0	—	0	—	0	—	0	—	2	53	5	56	10	46	2	39	2	32	0	21	47		
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	75	11	58	3	38	1	46	0	18	57		
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	117	8	85	1	89	9	—	0	12	93		
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	99	0	—	0	—	0	3	99		
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	102	1	118	1	94	0	—	0	3	105		
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	86	0	—	0	—	0	1	86		
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
1200 U.T.	Surface	1	7	3	10	0	—	0	—	1	5	0	—	0	—	3	8	5	11	4	10	6	8	0	23	9		
	1000	5	16	3	14	0	—	0	—	1	5	0	—	1	12	2	7	1	8	5	17	5	15	0	23	14		
	850	4	12	2	10	0	—	0	—	1	11	0	—	0	—	1	7	1	4	3	11	5	16	6	14	0	23	12
	700	1	2	0	—	0	—	0	—	0	—	0	—	2	12	4	15	5	24	8	19	3	23	0	23	19		
	600	1	15	0	—	0	—	0	—	9	—	0	—	0	—	5	28	8	31	8	28	1	22	0	23	23		
	500	0	—	0	—	0	—	0	—	6	—	0	—	0	—	5	41	13	41	3	33	2	26	0	23	39		
	400	1	40	9	—	0	—	0	—	0	—	0	—	0	—	2	75	12	56	5	64	1	44	0	21	59		
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	104	10	81	4	47	0	—	0	17	79		
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	10	6	96	0	—	0	—	0	7	98		
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	107	0	—	0	—	0	3	107		
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	53	0	—	0	—	0	1	53		
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			

N = Number of cases the element has been observed during the month,

T.N. = The total number of cases the wind has been observed for all directions during the month,

Table B 3.(contd) —NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES.

ASWAN (A) — JANUARY 1967

Time	Pressure Surface (Millibar.)	Wind between specified ranges of direction (000—360) ^o														Number of calm winds	Total Number of Observations (T N)	Mean Scalar wind Speed (Knots)										
		345		015		045		075		105		135		165		195		225		315								
		N (ff)	m	N (ff)	m	N (ff)	m	N (ff)	m	N (ff)	m	N (ff)	m	N (ff)	m	N (ff)	m	N (ff)	m	N (ff)	m							
0000 U.T.	Surface	4	8	2	8	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	7	0	8	8		
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	850	1	12	2	9	1	15	0	—	0	—	0	—	0	—	0	—	1	15	0	—	0	—	3	14	0	8	13
	700	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	36	1	23	5	17	1	12	0	8	20
	600	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	58	6	29	1	30	0	—	0	8	33
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	78	6	49	0	—	0	—	0	8	56
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	76	2	59	0	—	0	—	0	8	72
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	113	2	72	0	—	0	—	0	8	103
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	74	1	101	0	—	0	—	0	8	83
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
1200 U.T.	Surface	4	14	3	12	0	—	0	—	0	—	0	—	0	—	1	4	0	—	0	—	0	—	0	8	12		
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	850	1	14	3	8	0	—	0	—	0	—	0	—	0	—	1	5	0	—	1	10	2	10	0	8	9		
	700	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	29	1	12	4	11	1	13	0	8	16		
	600	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	46	6	27	0	—	0	—	0	8	32		
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	63	5	48	0	—	0	—	0	8	54		
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	56	3	76	0	—	0	—	0	8	64		
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	94	2	77	0	—	0	—	0	8	90		
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	97	2	83	0	—	0	—	0	4	90		
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	79	3	69	0	—	0	—	0	4	72		
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	38	1	54	0	—	0	—	0	2	46		
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	16	0	—	0	—	0	—	0	1	16		
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

N = The number of cases the element has been observed during the month,

TN = The total number of cases the wind has been observed for all directions during the month,

**REVIEW OF AGRO-METEOROLOGICAL STATION AT EL KASR
JANUARY 1967**

This month was slightly colder and less rainy than normal. The daily mean air temperature at 2 metres above ground was 0.5°C below normal and the total amount of rainfall was 2.3mm below normal. The month was characterised by a moderate heat wave in the period 10th - 13th with peak on 13th which was associated with the highest value of maximum air temperature. A moderate cold wave occurred in the period 17th — 24th which was associated with the lowest value of maximum air temperature on the 20th.

The extreme maximum soil temperatures at depths between 2 and 50 cm were lower than the corresponding values of January 1966 by values ranging between 4.4°C at 2cm depth and 0.9°C at 5 cm depth. At 100 depth the extreme maximum value was higher than the corresponding value of last January by 0.2°C . The extreme minimum soil temperatures at depths between 5 and 100 cm inclusive were lower than the corresponding values of January 1966 by values ranging between 1.0°C at 10cm depth and 0.1°C at 100cm depth. The extreme minimum value at 2cm depth was 0.4°C higher than the corresponding value of last January.

Mean daily pan evaporation was 0.72 mm lower than the corresponding value of January 1966. Total sunshine duration was 2.5 hours lower than the corresponding value of last January.

**REVIEW OF AGRO - METEOROLOGICAL STATION AT TAHRIR
JANUARY 1967**

Compared with January 1966, this month was cold and humid. Mean daily air temperature at 2 metres above ground was 2.8°C lower while mean daily relative humidity was 10% higher than the corresponding values for January 1966. Total amount of rainfall was 0.4mm higher than the corresponding value of last January. The month was characterised by two cold waves in the period 1st - 10th and 14th - 31st. The second wave was the more excessive and was associated with the lowest value of maximum air temperature on the 18th.

The extreme maximum soil temperatures at depths between 2 and 50cm inclusive were lower than the corresponding values of January 1966 by values ranging between 2.9°C at 5cm depth and 0.5°C at 50cm depth. At 100cm depth the extreme maximum value was 0.8°C higher than the corresponding value of last January. The extreme minimum soil temperatures at depths between 2 and 100cm inclusive were lower than the corresponding value of January 1966, by values ranging between 2.5°C at 10cm depth and 0.2°C at 100 cm depth.

Mean daily pan evaporation was 1.46 mm lower than the corresponding value of January 1966. Total actual duration of bright sunshine was 14.0 hours higher than the corresponding value of last Januay.

REVIEW OF AGRO - METEOROLOGICAL STATION AT GIZA
JANUARY 1967

This month was colder and slightly less rainy than normal. The mean daily air temperature at 2 metres above ground was 1.9°C below normal; the mean daily relative humidity was 1% below normal and total rainfall was 0.4 mm below normal. The month was characterised by two cold waves in the periods 1st - 11th and 15th - 31st. The second wave was the more excessive and was associated with the lowest value of maximum air temperature on the 21st.

The minimum air temperature at 5cm above grass (Libia) fell below 0°C on 12 days which is equal to the corresponding number of days during January 1966. The minima on these days are given in the following table :

Minimum air temperatures below 0°C at 5cm above Grass (Libia).

Date	8	9	11	12	19	22	23	24	25	26	30	31
Min. (°C)	-1.1	-1.3	-2.4	-2.1	-0.7	-1.9	-5.2	-1.7	-2.1	-3.8	-0.5	-0.9

The extreme maximum soil temperatures in the dry field at depths between 2 and 20 cm inclusive were lower than the corresponding values of January 1966 by values ranging between 3.9°C at 2cm depth and 0.6 °C at 20cm depth. At 50 and 100 cm depths the extreme maximum values were higher than the corresponding values of last January by 0.1 and 0.5°C respectively. The extreme minimum soil temperatures at depths between 2 and 100cm inclusive were lower than the corresponding values of last year by values ranging between 1.7°C at 20 cm depth and 0.4°C at 100 cm depth.

Mean daily pan evaporation was 0.09 mm higher than the corresponding value of January 1966. Total potential evapotranspiration was 0.3 mm higher than the corresponding value of last January. Total sunshine duration was 2.0 hours higher than the corresponding value of January 1966.

REVIEW OF AGRO-METEOROLOGICAL STATION AT KHARGA
JANUARY 1967

This month was cooler than normal. The mean daily air temperature at 2 metres height above ground was 0.7 °C below normal and the total amount of rainfall was nil i.e. 0.1 mm below normal. The month was characterised by a moderate heat wave in the period 11th — 15th with peak on 13th which was associated with the highest value of maximum air temperature on 13th. Two coldwaves occurred in the periods 1st -- 8th and 16th—31st. The second cold wave was the more excessive and was associated with the lowest maximum air temperature on the 21st.

The extreme maximum soil temperatures at different depths between 2 and 50 cm were lower than the corresponding values of January 1966 by values ranging between 1.6 °C at 5 and 20 cm depths and 1.0 °C at 50 cm depth. At 100 cm depth the extreme maximum value was 0.6 °C higher than the corresponding value of last January. The extreme minimum soil temperatures were lower than the corresponding values of January 1966 by values ranging between 1.6 °C at 5 cm depth and 0.1°C at 100 cm depth.

Mean daily pan evaporation was 0.44 mm higher than the corresponding value of January 1966. Total duration of bright sunshine was 3.8 hours higher than the corresponding value of last January.

Table C 1.— AIR TEMPERATURE AT 2 METRES ABOVE GROUND**JANUARY — 1967**

STATION	Air Temperature (°C)					Mean Duration in hours of daily air temperature above the following values										
	Mean Max.	Mean Min.	Mean of the day	Night time mean	Day time mean	-5°C	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C
Kasr	17.5	7.6	12.2	10.2	14.2	24.0	24.0	24.0	19.9	5.5	0.5	0.0	0.0	0.0	0.0	0.0
shir	18.9	5.8	11.6	8.9	14.3	24.0	24.0	23.0	13.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0
za	18.3	4.9	10.7	8.5	13.9	24.0	24.0	22.0	14.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0
marga	20.8	3.7	12.6	9.3	15.8	24.0	24.0	22.0	15.0	9.0	2.0	0.0	0.0	0.0	0.0	0.0

Table C 2. ABSOLUTE VALUES OF AIR TEMPERATURE AT 2 METRES ABOVE GROUND, ABSOLUTE MINIMUM AIR TEMPERATURE AT 5 cms ABOVE GROUND OVER DIFFERENT FIELDS.**JANUARY — 1967**

STATION	Max. Temp. at 2 metres (°C)				Min. Temp. at 2 metres (°C)				Min. Temp. at 5 cms. above (°C)			
	Highest		Lowest		Highest		Lowest		Dry soil		Grass	
	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date
Kasr	24.1	13	11.9	20	15.9	13	2.8	29	1.1	22	—	—
shir	23.7	12	13.7	15	9.5	14	1.1	22	-1.1	22	—	—
za	23.2	12	13.5	21	8.2	15	1.1	24	-5.2	23	-4.8	23
marga	27.8	13	16.4	21	8.2	15	1.0	24	-2.2	24	—	—

Table C 3.—(SOLAR + SKY) RADIATION, DURATION OF BRIGHT SUNSHINE, RELATIVE HUMIDITY, VAPOUR PRESSURE AT 2 METRES ABOVE GROUND, EVAPORATION & RAINFALL**JANUARY — 1967**

STATION	(Solar + Sky) Radiation $\mu\text{cal/cm}^2$	Duration of Bright Sunshine (hours)		Relative Humidity			Vapour pressure (mms)				Evaporation (mms)		Rainfall (mms)							
		Total monthly	Actual monthly	Total Possible monthly	%	Mean of day	1200 U.T.	Highest	Date	1200 U.T.	Highest	Date	Lowest	Date	Piche	Pan class A	Total Amount Monthly	Max. Fall in one day	Date	
Kasr	220.5	2.0	0.7	321.0	71	67	53	16	13	7.0	7.3	10.4	28	3.0	13	8.0	5.69	22.3	4.2	17
shir	311.5	234.7	322.8	72	71	45	13	13	13	7.0	6.6	10.1	5	2.7	13	4.1	3.31	3.4	1.5	19
za	302.4	244.0	324.0	75	70	44	22	22	22	6.5	6.4	10.3	15	2.7	22	4.5	3.34	2.5	1.4	20
marga	349.1	318.7	334.0	95	54	29	8	12	12	4.6	4.8	6.9	5	1.5	28	9.5	6.60	0.0	0.0	—

**Table C 4. EXTREME SOIL TEMPERATURE AT DIFFERENT DEPTHS
IN DIFFERENT FIELDS (cms)**

JANUARY -1937

STATION	Highest (H) Lowest (L)	Extreme soil temperature (°C) in dry field at different depths (cms.)							Extreme soil temperature (°C) in grass field at different depths (cms.)							
		2	5	10	20	50	100	200	2	5	10	20	50	100	200	300
El Kasm	H	21.4	20.0	17.7	15.3	15.0	17.6	21.0	—	—	—	—	—	—	—	—
	L	4.2	5.1	7.6	10.1	13.0	16.1	19.3	—	—	—	—	—	—	—	—
Tahrir	H	26.4	22.6	19.0	16.7	16.5	18.8	22.1	23.7	—	—	—	—	—	—	—
	L	2.3	4.5	6.1	8.8	12.8	16.4	19.5	21.7	—	—	—	—	—	—	—
Giza	H	31.5	21.8	19.8	17.8	19.5	22.4	25.3	26.3	—	15.8	14.8	14.0	15.4	—	—
	L	0.4	5.5	10.2	13.5	16.6	19.8	23.2	25.0	—	8.4	7.2	9.7	13.0	—	—
Kharga	H	26.2	24.3	20.6	19.4	20.8	24.2	28.0	29.2	—	—	—	—	—	—	—
	L	2.6	5.2	11.2	14.8	18.9	22.1	26.0	28.1	—	—	—	—	—	—	—

Table C 5. SURFACE WIND

JANUARY -1967

STATION	Wind Speed m/sec at 1½ metres			Days with surface wind speed at 10 metres							Max. Gust (knots) at 10 metres	
	Mean of the day	Night time mean	Day time mean	≥ 10 knots	≥ 15 knots	≥ 20 knots	≥ 25 knots	≥ 30 knots	≥ 35 knots	≥ 40 knots	value	Date
El Kasm	5.0	4.7	5.4	—	—	—	—	—	—	—	—	—
Tahrir	2.4	1.8	3.1	20	16	8	4	0	0	0	37	17th
Giza	1.7	1.1	2.3	17	9	1	0	0	0	0	30	29th
Kharga	3.0	1.9	4.1	27	23	6	1	0	0	0	30	21st



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PUBLICATIONS OF THE METEOROLOGICAL DEPARTMENT OF THE UNITED ARAB REPUBLIC—CAIRO

In fulfilment of its duties as the National Meteorological Service for the U.A.R., the Meteorological Department issues several reports and publications on weather, climate and agrometeorology. The principal publications are described on this page.

Orders for publication should be addressed to :
“The Director General, Meteorological Department, Kubri-el-Qubbeh—CAIRO”.

THE DAILY WEATHER REPORT

This report is printed daily in the Meteorological Department. It contains surface and upper air observation carried by the relevant networks of the Republic and made at the four main synoptic hours of observation (00, 06, 12 and 18 U.T.) ; as well as ship observations over the Eastern Mediterranean and north Red Sea made at the same times.

It also contains two surface synoptic charts at 00 and 12 U.T. and two upper air charts for the standard isobaric surfaces 700 & 500 mbs. at both 00 and 12 U.T.

In compliance with resolution 8 (EC-XIII) of WMO, foreign upper air data included in Cairo Subregional Broadcast are also given in this report.

THE MONTHLY WEATHER REPORT

First issued in 1909, the Monthly Weather Report served to give a brief summary of the weather conditions that prevailed over Egypt during the month, with a table showing the mean values for few meteorological elements and their deviation from the normal values. From 1954 to 1957 this report was in a rapid state of development and extension resulting into a voluminous report on January 1958 giving surface, upper air, and agro-meteorological data for U.A.R.

THE AGRO-METEOROLOGICAL ABRIDGED MONTHLY REPORT

Gives a review of weather experienced in the agro-meteorological stations of the U.A.R. as well as monthly values of certain elements.

THE ANNUAL REPORT

This report gives annual values and statistics for the various meteorological elements, together with a summary of the weather conditions that prevailed during all months of the year.

CLIMATOLOGICAL NORMALS FOR EGYPT

The normals, long averages and statistical data are given in one edition for stations in Egypt from the date of opening of each station up to 1945. A new voluminous edition was issued in March 1968 which brings normals and mean values up till 1960.



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MINISTRY OF SCIENTIFIC RESEARCH—METEOROLOGICAL DEPARTMENT
CAIRO

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GENERAL SUMMARY OF WEATHER CONDITIONS

FEBRUARY 1967

Cold and light rainy with few scattered thundery cells in the northern parts, generally mild and dry elsewhere. Early morning fog and mist over scattered localities in Delta, Canal and Cairo areas.

GENERAL DESCRIPTION OF WEATHER

The prevailing weather during this month was cold in general in the northern parts; mild in the central and southern parts. Light rain in general fell in several days, local heavy rain was reported at few scattered localities of the Mediterranean coast and was rarely accompanied with thunderstorms.

Rising sand occurred over scattered localities in association with frontal transits. Early morning fog and mist developed in many days over scattered localities of the Delta, Canal and Cairo areas.

PRESSURE DISTRIBUTION

The most outstanding features of pressure distribution on the surface maps during this month were :

- The Siberian anticyclone.
- The Atlantic anticyclone and its south-east extension over North Africa.
- Deep low pressure systems passing through North Urasia.
- Four secondary depressions passing through the Mediterranean area.

The first secondary depression originated over Tunisia on the 6th, moved slowly eastwards reaching East Mediterranean on the 10th, then moved NE wards on the 11th to the Black Sea area where it filled up the next day.

The second secondary depression developed over Central Mediterranean on the 13th, moved rapidly through East Mediterranean on the 14th and then continued its track afterwards to Iraq.

The third secondary depression appeared over West Mediterranean on the 14th, moved rapidly to East Mediterranean on the 16th and then continued its motion towards Iraq while filling.

The fourth and last secondary depression during this month appeared over Central Mediterranean on the 19th, moved slowly eastwards and traversed East Mediterranean on the 22nd.

As a result of the transits of the above mentioned four secondary depressions, the barometric pressure in U.A.R. experienced corresponding falls reaching minima round the 10th, 14th, 16th & 22nd respectively.

Otherwise, the barometric pressure was above normal and high pressure established over the Mediterranean and NE Africa regions.

The important features of pressure distribution on the 700 & 500 mb. upper air maps were :

— Two deep upper low pressure systems : one over North Urasia and the other over North Atlantic.

— Secondary upper lows (or troughs) through the Middle latitudes and passing by U.A.R. round the 10th, 14th, 17th & 21st.

— Upper high pressure system south of latitude 30° N.

SURFACE WIND

The prevailing winds during this month were generally W, NW in north of the Republic till Cairo. They backed to W, SW in advance of the frontal passages and veered to NE during few days. In south of the Republic, N/NW winds prevailed.

Winds were light to moderate in general. They became fresh and strong over the Red Sea district on many days of the month, and over scattered localities in the northern coast and Western Desert on few days.

Caless were reported at Dabaa on the 20th.

TEMPERATURE

Four cold waves generally of moderate intensities prevailed most days of this month and were separated with warm spells of short

duration. Maximum temperature was moderately below its normal most days of the month and its values ranged in general between 15° & 20°C in the northern parts, between 18° & 23°C in the central parts and between 23° & 28°C in the southern parts.

The absolute maximum temperature was 32.0°C at Dakhla on the 13th.

Minimum temperature oscillated moderately round its normal in the northern parts and its values ranged most days of the month between 5°, 12°C. In the central and southern parts, minimum temperature was moderately below its normal in general and its values ranged most days of the month between 3°, 10°C.

The absolute minimum temperature was -0.5°C at Farafra on the 18th.

PRECIPITATION

Rain fell during the cold waves over the northern parts and extended sometimes in land to the central parts. Rain was light to moderate and its monthly totals were below normal in general, though it was heavy in particular over Ghazza on the 3rd, 14th, & 20th, over El Arish and Alexandria on the 4th.

The highest daily rainfall was 24.0 mms at Amria on the 24th.

The highest monthly rainfall was 29.1 at El Arish.

M. F. TAHA
Under Secretary of State
Director General
Meteorological Department

**Table A 1.—MONTHLY VALUES OF THE ATMOSPHERIC PRESSURE, AIR TEMPERATURE,
RELATIVE HUMIDITY, BRIGHT SUNSHINE DURATION & PICHE EVAPORATION**

FEBRUARY — 1967

STATION	Atmospheric Pressure (mbs) M.S.L.		Air Temperature °C								Relative Humidity %		Bright Sunshine Duration (Hours)			Piche Evaporation mm. Mean	
			Maximum		Minimum		$\frac{A+B}{2}$	Dry Bulb		Wet Bulb		Mean	D.F. Normal or Average	Total Actual	Total Possible	%	
	Mean	D.F. Normal or Average	(A) Mean	D.F. Normal or Average	(B) Mean	D.F. Normal or Average		Mean	D.F. Normal or Average	Mean	D.F. Normal or Average						
Sallum	1019.2	+1.9	18.5	-1.2	10.0	+0.3	14.2	14.0	-0.6	10.4	-0.1	61	+7	—	—	—	5.9
Mersa Matruh. . . (A)	1019.1	+2.0	17.7	-1.1	8.3	-0.1	13.0	12.9	-1.5	10.0	-0.8	67	+4	—	—	—	5.9
Alexandria . . . (A)	1018.6	+1.6	18.3	-0.9	7.9	-1.6	13.1	13.3	-0.9	10.4	-0.8	67	-1	219.3	310.5	71	4.8
Port Said. . . . (A)	1017.8	+0.9	17.0	-1.6	12.3	+0.3	14.6	14.2	-0.6	11.5	-0.5	70	+1	209.5	310.5	67	4.9
El Arish.	1018.0	+1.0	18.0	-1.9	8.8	-0.3	13.4	13.0	-0.8	10.7	-0.2	74	+7	—	—	—	3.8
Ghazza.	1017.6	+1.1	16.5	-1.4	8.8	-1.2	12.6	12.9	-1.1	10.2	-1.5	69	-5	185.9	309.9	60	2.7
Tanta.	1017.9	+0.6	19.0	-1.9	6.4	-0.2	12.7	12.3	-0.5	9.5	-0.4	67	+1	225.4	310.9	72	3.5
Cairo. (A)	1018.2	+0.8	19.2	-1.4	8.8	-0.6	14.0	13.7	-1.1	9.4	-1.1	53	-2	—	—	—	4.9
Fayoum.	1018.2	+1.1	21.3	-0.7	6.3	-1.1	13.8	13.2	-1.1	9.5	-0.3	57	+5	—	—	—	4.1
Minya. (A)	1018.3	+0.6	21.3	-1.1	4.3	-0.9	12.8	12.5	-0.8	8.4	-0.5	53	0	246.5	312.1	79	6.0
Asyout. (A)	1017.9	+0.7	21.0	-1.6	6.8	-0.7	13.9	13.7	-1.4	8.7	-0.5	46	+5	—	—	—	9.5
Luxor. (A)	1018.6	+0.5	24.5	-0.7	7.3	+0.6	15.9	15.7	-0.2	10.0	0.0	43	+1	—	—	—	5.3
Aswan. (A)	1016.4	+0.8	24.8	-1.0	8.6	-0.6	16.7	16.8	-0.7	9.0	0.0	27	+3	—	—	—	10.7
Siwa	1019.9	+2.2	20.7	-1.0	6.5	+0.8	13.6	13.6	-0.3	9.1	+0.5	51	+7	—	—	—	7.4
Bahariya.	1019.1	+2.0	20.2	-2.0	7.0	+0.7	13.6	13.8	+0.1	8.7	+0.3	46	+2	—	—	—	6.0
Farafra.	1020.3	+0.8	21.1	-1.3	4.9	-0.5	13.0	12.9	-1.1	8.3	+0.9	49	+9	—	—	—	8.4
Dakhla.	1019.4	+1.4	22.7	-1.0	5.1	-0.6	13.9	13.9	+0.3	8.3	+1.1	41	+10	—	—	—	7.2
Kharga.	1017.8	+0.8	23.1	-1.3	8.1	+1.0	15.6	15.7	+0.5	8.9	+0.2	39	+1	277.6	316.2	88	12.1
Tor.	1016.6	+0.2	20.2	-1.6	9.0	-0.7	14.6	15.5	-0.6	10.5	-0.9	49	-6	—	—	—	9.9
Hurghada.	1016.0	+0.4	21.3	+0.1	10.3	+0.4	15.8	16.1	-0.4	10.2	-1.0	42	-6	—	—	—	12.8
Quseir	1016.6	+0.7	21.8	-1.2	13.7	-0.6	17.8	17.9	-0.4	12.1	-0.3	46	+1	—	—	—	13.6

Table A 2.—MAXIMUM AND MINIMUM AIR TEMPERATURES

FEBRUARY — 1967

Station	Maximum Temperature °C										Mean	Grass Min. Temp.	Minimum Temperature °C																					
	Highest	Date	Lowest	Date	Ns. of Days with Max. Temp.																													
					>25	>30	>35	>40	>45																									
Sallam	22.9	13	14.5	16	0	0	0	0	0	9.5	—	—	12.9	1	6.0	17	15	0	0	0	0	0												
Mersa Matruh . . (A)	21.0	13	13.9	17	0	0	0	0	0	—	—	—	13.2	28	4.6	18	24	3	0	0	0	0												
Alexandria . . . (A)	20.9	8	15.2	17	0	0	0	0	0	—	—	—	12.9	21	4.6	16	19	1	0	0	0	0												
Port Said . . . (A)	20.3	9	14.4	17	0	0	0	0	0	10.4	—	—	15.0	28	9.5	18	2	0	0	0	0	0												
El Arish (A)	23.2	10	14.7	4	0	0	0	0	0	6.7	—	—	13.5	23	5.4	3	22	0	0	0	0	0												
Ghazza (A)	20.4	10	15.0	4	0	0	0	0	0	7.5	—	—	13.7	23	5.2	3	22	0	0	0	0	0												
Tanta	23.0	25	15.0	17	0	0	0	0	0	5.4	—	—	9.3	22	2.7	6	28	6	0	0	0	0												
Cairo (A)	23.1	27	15.5	4, 15	0	0	0	0	0	—	—	—	12.8	10	4.2	14	22	2	0	0	0	0												
Fayoum	25.3	27	18.2	17	1	0	0	0	0	4.6	—	—	9.9	28	2.0	18	28	9	0	0	0	0												
Minya (A)	25.1	8	18.0	3	1	0	0	0	0	2.5	—	—	10.0	14	0.8	18	27	18	0	0	0	0												
Asyout (A)	25.2	8	15.3	16	1	0	0	0	0	5.1	—	—	11.3	14	3.0	17	27	5	0	0	0	0												
Luxor (A)	29.2	26	19.8	3	10	0	0	0	0	2.6	—	—	13.7	16	2.3	1	24	5	0	0	0	0												
Aswan (A)	30.8	10	19.0	4	14	2	0	0	0	—	—	—	15.6	14	5.0	6	21	0	0	0	0	0												
Siwa	24.6	13	16.2	17	0	0	0	0	0	4.9	—	—	12.2	14	0.4	18	25	4	0	0	0	0												
Bahariya	24.9	13	17.4	17	0	0	0	0	0	5.1	—	—	12.8	14	1.0	18	25	6	0	0	0	0												
Farafra	28.7	13	17.4	1	2	0	0	0	0	4.3	—	—	9.7	14	-0.5	18	28	14	1	0	0	0												
Dakhla	32.0	13	16.4	16	5	2	0	0	0	—	—	—	11.6	14	-0.4	7	27	16	1	0	0	0												
Kharga	29.6	10	18.4	3	5	0	0	0	0	6.2	—	—	13.9	14	2.7	7	21	5	0	0	0	0												
Tor	24.6	28	17.0	16	0	0	0	0	0	—	—	—	14.8	11	5.2	3	7	0	0	0	0	0												
Hurghada	24.6	14	15.1	16	0	0	0	0	0	8.5	—	—	15.2	14	7.3	17	14	0	0	0	0	0												
Quseir	26.6	14	18.6	18	2	0	0	0	0	12.8	—	—	17.1	14	11.5	4	0	0	0	0	0	0												

Table A 3.—SKY COVER AND RAINFALL
FEBRUARY — 1967

Station	Mean Sky Cover Oct					Rainfall mm's										
	00	06	12	18	Daily	Total	Dev. From	Max. Fall in one day		Number of Days With Amount of Date						
	U.T.	U.T.	U.T.	U.T.	Mean	Amount	Normal	Amount	Date	< 0.1	≥ 0.1	≥ 1.0	≥ 5.0	≥ 10	≥ 25	≥ 50
Sallum	3.2	3.8	4.5	2.6	3.5	6.8	— 4.7	5.5	17	1	4	3	1	0	0	0
Mersa Matruh . . . (A)	2.4	4.8	4.9	3.6	3.7	5.0	—12.7	1.8	2	2	4	3	0	0	0	0
Alexandria . . . (A)	3.6	5.2	5.0	3.3	3.4	9.6	—21.7	3.6	4	4	6	3	0	0	0	0
Port Said . . . (A)	2.9	3.9	3.8	2.5	3.1	13.3	— 1.3	4.4	20	0	7	3	0	0	0	0
El Arish	3.3	3.9	3.8	2.9	3.5	29.1	+12.7	15.7	4	0	9	4	2	1	0	0
Ghazza	3.5	3.9	4.1	3.3	3.6	75.9	+25.9	26.2	20	0	10	8	3	3	1	0
Tanta	0.8	3.1	4.3	1.9	2.5	2.0	— 5.9	0.6	4	0	4	0	0	0	0	0
Cairo (A)	1.9	4.4	4.9	2.0	3.2	2.4	— 2.3	2.0	4	3	2	1	0	0	0	0
Fayoum	—	3.3	3.9	1.6	—	tr.	— 1.4	tr.	16, 17	2	0	0	0	0	0	0
Minya (A)	1.0	1.8	2.7	1.0	1.6	0.0	— 1.2	0.0	—	0	0	0	0	0	0	0
Assyout (A)	0.8	1.1	2.3	1.3	1.3	2.0	+ 1.7	2.0	16	0	1	1	0	0	0	0
Luxor (A)	1.0	1.4	1.8	2.0	1.5	tr.	— 0.2	tr.	14, 15, 16	3	0	0	0	0	0	0
Aswan (A)	1.0	1.6	2.0	1.6	1.5	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Siwa	1.2	2.5	3.1	1.7	2.1	0.3	— 2.2	0.3	9	1	1	0	0	0	0	0
Bahariya	1.0	2.3	2.7	1.4	1.9	0.0	— 1.2	0.0	—	0	0	0	0	0	0	0
Farafra	—	1.7	3.1	1.6	—	0.0	— tr.	0.0	—	0	0	0	0	0	0	0
Dakhla	0.5	1.2	2.1	1.0	1.4	0.3	0.0	0.3	16	0	1	0	0	0	0	0
Kharga	0.6	1.1	1.9	1.1	1.2	0.0	— 0.3	0.0	—	0	0	0	0	0	0	0
Tor	0.8	2.3	2.2	1.8	1.9	tr.	— 1.3	tr.	9, 14	2	0	0	0	0	0	0
Hurghada	0.5	1.4	1.6	1.3	1.2	0.6	+ 0.6	0.6	16	0	1	0	0	0	0	0
Quseir	0.9	1.9	2.3	1.6	1.3	1.5	+ 1.5	0.8	16	2	2	0	0	0	0	0

Table B 1 (contd.)—UPPER AIR CLIMATOLOGICAL DATA
FEBRUARY — 1967

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mersa Matruh (A) 1200 UT	Surface	28	*	*	*	28	16.7	20.0	13.8	28	8.4
	1000	28	186	251	88	28	14.5	19.0	7.3	28	7.2
	850	28	1532	1596	1443	28	4.7	11.2	-1.9	28	-3.1
	700	28	3095	3188	2996	28	-2.5	4.1	-8.3	12	-12.8
	600	28	4302	4411	4190	28	-10.0	-4.0	-17.7	8	-19.6
	500	28	5683	5805	5535	28	-19.4	-14.4	-26.3	4	-28.4
	400	28	7303	7449	7125	28	-32.0	-26.0	-39.0	3	-32.1
	300	26	9285	9443	9076	26	-44.4	-38.5	-50.0	—	—
	200	23	11919	12112	11709	23	-54.8	-45.0	-61.2	—	—
	150	21	13746	13939	13555	21	-58.5	-52.5	-62.0	—	—
	100	15	16267	16448	16082	15	-63.8	-58.1	-68.9	—	—
	70	1	18500	—	—	1	-64.8	—	—	—	—
	60	1	19444	—	—	1	-65.0	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 1200 UT	Surface	28	*	*	*	28	18.3	22.8	15.0	28	2.0
	1000	28	145	200	5.9	19	17.5	22.6	14.7	19	2.2
	850	28	1502	1459	1422	28	5.3	11.9	1.7	26	-3.4
	700	28	3070	3133	2990	28	-0.9	3.8	-6.3	12	-12.4
	600	28	4284	4357	4190	28	-8.2	-2.8	-14.6	6	-15.3
	500	28	5674	5735	5575	28	-18.0	-12.7	-22.3	7	-24.4
	400	27	7302	7393	7188	27	-30.3	-23.9	-35.4	11	-38.4
	300	27	9292	9415	9142	27	-44.2	-38.2	-49.8	—	—
	200	26	11935	12085	11747	26	-54.7	-44.4	-64.7	—	—
	150	23	13751	13892	13578	23	-60.0	-55.8	-62.5	—	—
	100	22	16252	16395	16089	22	-65.5	-61.2	-71.5	—	—
	70	16	18428	18570	18260	16	-64.8	-58.8	-67.8	—	—
	60	14	19373	19505	19225	14	-63.3	-58.5	-69.6	—	—
	50	11	20510	20637	20397	11	-59.0	-53.9	-61.7	—	—
	40	8	21934	22047	21820	8	-55.7	-53.2	-59.0	—	—
	30	6	23794	23898	23651	6	-52.8	-50.3	-56.5	—	—
	20	4	26472	26546	26397	4	-49.4	-46.0	-53.3	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan (A) 1200 UT	Surface	28	992m.b.	997m.b.	986m.b.	28	23.3	29.0	17.4	28	-0.2
	1000	28	125	159	78	—	—	—	—	—	—
	850	27	1510	1554	1465	27	13.1	22.4	6.7	14	-6.5
	700	27	3120	3164	3078	27	6.2	11.6	-2.0	7	-8.1
	600	28	4365	4430	4301	28	-2.0	3.4	-7.8	7	-11.4
	500	28	5754	5873	5711	28	-11.5	-6.4	-16.4	8	-19.8
	400	28	7465	7571	7367	28	-23.4	-19.0	-29.2	8	-28.3
	300	28	9515	9647	9305	28	-35.8	-29.8	-41.9	—	—
	200	27	12234	12401	12070	27	-53.3	-49.6	-65.4	—	—
	150	23	14039	14245	13844	23	-62.4	-55.8	-66.0	—	—
	100	19	16500	16747	16323	19	-70.6	-63.2	-75.0	—	—
	70	11	18616	18680	18570	11	-68.4	-61.0	-74.9	—	—
	60	8	19542	19597	19490	8	-64.3	-61.7	-69.0	—	—
	50	8	20670	20724	20612	8	-59.8	-56.2	-62.2	—	—
	40	7	22075	22143	22012	7	-54.1	-49.7	-57.7	—	—
	30	6	23934	24036	23848	6	-49.2	-47.0	-56.5	—	—
	20	4	26616	26774	26426	4	-43.9	-38.3	-55.4	—	—
	10	—	—	—	—	—	—	—	—	—	—

N = The number of cases the element has been observed during the month.

* The atmospheric pressure corrected to the elevation of the radiosonde station.

Table B 2.—MEAN AND EXTREME VALUES OF THE FREEZING LEVEL AND THE TROPOPAUSE;
THE HIGHEST WIND SPEED IN THE UPPER AIR

FEBRUARY — 1967

Station	Freezing Level									First Tropopause									Highest wind speed				
	Mean			Highest			Lowest			Mean			Highest			Lowest			Altitude (gpm)	Pressure (mb.)	Direction (000—360)°	Speed in 'Knots'	
	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (in.')	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)					
TU 0000	(N)	(N)	(N)							(N)	(N)	(N)											
	2285 (28)	773 (28)	-6.8 (20)	3400	677	-	1280	872	-2.3	10531 (22)	249 (22)	-52.5	12340	181	-63.0	8450	329	-48.7	10000	272	272	176	
	Helwan . . .	2512 (28)	752 (28)	-7.8 (18)	3600	656	-4.9	1520	850	-3.1	11218 (22)	234 (22)	-57.1 (22)	15370	115	-62.4	7940	357	-41.1	12070	198	310	150
TU 0021	Aswan . . . (A)	3857 (27)	639 (27)	-7.6 (7)	4670	580	-	2920	715	-	15953 (14)	110 (14)	-72.1 (14)	17970	77	-76.0	13330	170	-61.0	11700	211	250	160
	(N)	(N)	(N)							(N)	(N)	(N)											
	Mersa Matruh (A)	2540 (28)	754 (28)	-7.5 (18)	3670	656	-	1340	870	-6.5	10916 (19)	238 (19)	-55.2 (19)	14830	130	-63.6	7580	374	-40.3	10030	257	274	163
	Helwan . . .	2755 (28)	731 (28)	-9.1 (16)	3640	653	-17.2	1650	836	-3.8	15362 (26)	221 (26)	-56.7 (26)	14630	131	-64.6	7870	363	-40.0	11150	227	300	146
	Aswan . . . (A)	4044 (28)	626 (28)	-12.6 (8)	4900	562	-12.5	2820	722	-	15713 (16)	113 (16)	-69.1 (16)	18830	68	-72.0	13320	187	-72.5	8975	198	270	152

N = The number of cases the element has been observed during the month.

Table A 5. (contd.)—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDS WITHIN SPECIFIED RANGES

FEBRUARY — 1967

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indication													All directions
					345	015	045	075	105	135	165	195	225	255	285	315		
					/	/	/	/	/	/	/	/	/	/	/	/		
Asyout (A)	4	0	23	1—10	6	3	9	24	12	10	13	10	57	194	122	45	505	
				11—27	11	0	0	0	1	0	4	0	4	25	53	42	140	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	17	3	9	24	13	10	17	10	61	219	175	87	645	
Luxor (A)	6	7	2	1—10	79	53	22	25	17	33	120	51	23	64	96	69	652	
				11—27	1	0	0	0	0	0	0	0	0	0	1	4	6	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	80	53	22	25	17	33	120	51	23	64	97	73	658	
Aswan (A)	1	2	16	1—10	180	158	10	5	2	4	5	6	4	12	5	53	444	
				11—27	122	53	0	0	0	0	0	0	0	0	1	33	209	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	302	211	10	5	2	4	5	6	4	12	6	86	653	
Siwa	8	13	0	1—10	19	60	49	61	60	20	20	21	79	102	65	30	586	
				11—27	0	8	3	0	2	2	2	1	3	14	25	5	65	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	19	68	52	61	62	22	22	22	82	116	90	35	651	
Dakhla	6	0	0	1—10	45	42	24	17	18	13	29	25	58	90	117	139	617	
				11—27	13	1	0	0	1	0	0	2	0	3	12	17	49	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	58	43	24	17	19	13	29	27	58	93	129	156	666	
Kharga	6	5	43	1—10	92	37	18	10	8	13	10	10	9	14	30	125	376	
				11—27	112	9	0	0	0	0	3	0	1	4	16	97	242	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	204	46	18	10	8	13	13	10	10	18	46	222	618	
Hurghada	5	1	0	1—10	9	15	12	6	13	9	5	3	4	12	58	34	180	
				11—27	150	10	0	0	4	0	0	0	0	5	128	163	460	
				28—47	14	0	0	0	0	0	0	0	0	0	3	9	26	
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	173	25	12	6	17	9	5	3	4	17	189	206	666	
Quseir	0	2	2	1—10	22	38	16	9	6	3	8	8	9	55	109	73	356	
				11—27	148	27	0	0	0	0	0	1	0	5	122	311	460	
				28—47	1	0	0	0	0	0	0	0	0	0	0	0	1	
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	169	65	16	9	6	3	8	9	9	55	114	105	668	

**Table B 1.—UPPER AIR CLIMATOLOGICAL DATA
FEBRUARY — 1967**

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mersa Matruh (A) 0000 UT	Surface	28	1019m.b.	1026m.b.	1006m.b.	28	10.9	14.2	8.0	28	6.5
	1000	28	186	245	78	28	11.9	14.0	8.8	28	6.7
	850	28	1528	1588	1435	28	3.6	9.0	-2.4	27	-4.8
	700	28	3086	3164	2991	28	-1.3	2.0	-9.3	11	-13.1
	600	27	4292	4376	4174	27	-10.4	-6.0	-17.2	8	-17.8
	500	27	5671	5766	5530	27	-20.2	-14.4	-25.1	6	-27.1
	400	27	7286	7412	7120	27	-31.7	-28.3	-37.7	4	-35.3
	300	26	9251	9409	9061	26	-46.0	-40.6	-52.5	—	—
	200	24	11866	12029	11668	24	-55.9	-45.7	-63.0	—	—
	150	20	13663	13898	13481	20	-58.5	-53.0	-65.4	—	—
	100	12	16213	16395	16035	12	-65.9	-62.2	-70.0	—	—
	70	5	18438	18500	18300	5	-66.7	-62.8	-72.1	—	—
	60	5	19374	19430	19246	5	-63.8	-60.3	-66.2	—	—
	50	2	20537	20555	20519	2	-59.9	-55.3	-64.5	—	—
	40	1	21894	—	—	1	-60.3	—	—	—	—
	30	1	23714	—	—	1	-55.0	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 0000 UT	Surface	28	1001m.b.	1006m.b.	992m.b.	28	10.2	13.8	8.2	28	3.8
	1000	28	150	198	74	18	10.1	11.9	8.7	18	4.8
	850	28	1489	1533	1424	28	4.4	12.8	0.0	26	-6.0
	700	28	3054	3123	2986	28	-2.1	3.8	-8.8	10	-14.6
	600	28	4263	4360	4181	28	-9.7	-3.9	-14.9	6	-16.0
	500	27	5644	5731	5525	27	-19.5	-13.8	-26.6	6	-26.2
	400	27	7264	7386	7096	27	-31.4	-25.6	-39.3	6	-32.7
	300	27	9247	9404	9084	27	-45.1	-39.5	-52.8	1	-40.3
	200	26	11883	12045	11666	26	-55.8	-48.0	-64.3	—	—
	150	24	13686	13895	13480	24	-60.1	-53.8	-63.5	—	—
	100	21	16165	16405	15960	21	-66.4	-58.5	-70.7	—	—
	70	18	18319	18520	18080	18	-66.5	-62.8	-70.3	—	—
	60	17	19274	19480	19106	17	-64.6	-60.5	-70.7	—	—
	50	16	20388	20670	20223	16	-62.3	-58.0	-67.8	—	—
	40	13	21776	21961	21658	13	-59.4	-55.6	-62.2	—	—
	30	12	23575	23713	23467	12	-55.8	-52.3	-60.6	—	—
	20	6	26198	26282	26078	6	-52.6	-49.7	-57.9	—	—
	10	1	30710	—	—	1	-49.6	—	—	—	—
Aswan 0000 UT	Surface	28	993m.b.	998m.b.	982m.b.	28	12.8	20.7	8.5	28	-0.5
	1000	28	135	176	39	—	—	—	—	—	—
	850	28	1504	1567	1451	28	12.3	20.9	4.8	15	-4.6
	700	28	3111	3186	3084	28	4.9	10.8	-6.1	8	-6.2
	600	27	4349	4424	4293	27	-3.1	2.3	-7.8	8	-10.4
	500	27	5766	5843	5701	27	-13.0	-7.5	-17.0	8	-18.4
	400	26	7429	7538	7336	26	-24.8	-20.5	-29.4	6	-28.9
	300	27	9467	9605	9346	27	-37.4	-32.2	-43.0	2	-42.2
	200	25	12176	12314	12019	25	-53.7	-49.2	-59.3	—	—
	150	25	13997	14113	13817	25	-63.2	-56.2	-67.6	—	—
	100	20	16413	16558	16269	20	-72.1	-66.8	-75.5	—	—
	70	14	18517	18690	18410	14	-70.5	-64.0	-77.3	—	—
	60	10	19449	19542	19352	10	-66.4	-64.5	-68.4	—	—
	50	10	20564	20666	20477	10	-62.4	-59.7	-66.7	—	—
	40	8	21931	21998	21863	8	-57.7	-50.5	-62.0	—	—
	30	7	23756	23840	23667	7	-64.8	-50.8	-60.0	—	—
	20	4	26370	26462	26273	4	-48.8	-45.2	-51.8	—	—
	10	—	—	—	—	—	—	—	—	—	—

N = The number of cases the element has been observed during the month.

* The atmospheric pressure corrected to the elevation of the radiosonde station.

Table A 4.—DAYS OF OCCURRENCE OF MISCELLANEOUS WEATHER PHENOMENA

FEBRUARY — 1967

Station	Precipitation				Frost	Thunderstorm	Mist Vis > 1000 metres	Fog Vis < 1000 Metres	Haze Vis ≥ 1000 Metres	Thick Haze Vis < 1000 Metres	Dust or Sandstorm Vis ≥ 1000 Metres	Gale	Clear Sky	Cloudy Sky	
	Rain	Snow	Ice. Pellets	Hail											
Sallum.	6	0	0	0	0	0	0	0	0	0	5	0	0	6	3
Mersa Matruh. . . (A)	4	0	0	0	0	0	0	0	0	0	0	0	0	4	2
Alexandria. . . . (A)	8	0	0	0	0	1	8	1	0	0	0	0	0	3	4
Port Said. . . . (A)	6	0	0	0	0	1	1	0	0	0	0	0	0	12	0
El Arish.	9	0	0	0	0	2	5	0	1	0	1	0	0	8	2
Ghazza.	10	0	0	0	0	1	0	0	0	0	0	0	0	7	3
Tanta.	5	0	0	0	0	0	2	0	0	0	0	0	0	12	0
Cairo. (A)	2	0	0	0	0	0	5	1	8	0	1	0	0	23	0
Fayoum.	0	0	0	0	0	0	0	0	0	0	0	0	0	—	—
Minya. (A)	0	0	0	0	0	0	0	1	0	0	0	0	0	23	0
Assyout. (A)	1	0	0	0	0	0	0	1	3	0	3	0	0	22	0
Luxor. (A)	0	0	0	0	0	0	0	0	6	0	2	0	0	18	1
Aswan. (A)	0	0	0	0	0	0	0	0	4	0	3	0	0	19	0
Siwa.	1	0	0	0	0	0	0	0	0	0	3	0	0	14	0
Bahariya.	0	0	0	0	0	0	0	0	0	0	3	0	0	21	1
Farafra.	0	0	0	0	0	0	0	0	3	0	5	0	0	—	—
Dakhla.	1	0	0	0	0	0	0	1	0	0	4	0	0	23	0
Kharga.	1	0	0	0	0	0	0	0	0	0	4	0	0	—	—
Tor.	0	0	0	0	0	0	0	0	2	0	14	0	0	15	0
Hurghada.	1	0	0	0	0	0	0	0	0	0	1	0	0	21	0
Quseir	0	0	0	0	0	0	0	0	0	0	1	0	0	19	0

Table A 5.—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES

FEBRUARY — 1967

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated												
					345	015	045	075	105	135	165	195	225	255	285	315	All directions
					014	/	044	/	074	104	134	164	194	224	254	284	/
Sallum	1	0	2	1—10	13	27	66	36	24	20	9	8	4	24	43	50	324
				11—27	5	18	34	6	3	7	0	12	11	40	115	94	345
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	18	45	100	42	27	27	9	20	15	64	158	144	669
Mersa Matruh . . (A)	25	0	0	1—10	35	51	16	22	16	25	24	21	24	44	31	23	332
				11—27	30	48	13	5	3	12	3	12	44	60	19	63	312
				28—47	0	0	0	0	0	0	0	0	0	0	0	2	3
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	65	99	29	27	19	37	27	33	68	104	52	87	647
Alexandria . . . (A)	11	0	0	1—10	35	48	71	22	44	29	42	35	18	15	41	50	450
				11—27	11	30	16	0	1	0	0	10	22	23	35	63	211
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All Speeds	46	78	87	22	45	29	42	45	40	38	76	113	661
Port Said . . . (A)	1	1	0	1—10	24	16	56	20	18	12	37	36	33	25	31	54	362
				11—27	53	31	24	0	0	1	12	20	47	45	18	33	284
				28—47	4	3	3	0	0	0	1	0	7	3	2	1	24
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	81	50	83	20	18	13	50	56	87	73	51	88	670
Tanta	48	0	1	1—10	38	86	36	29	32	21	23	28	40	82	109	70	594
				11—27	4	7	3	5	0	0	0	0	0	2	2	6	29
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	42	93	39	34	32	21	23	28	40	84	111	76	623
Fayoum	5	2	0	1—10	142	151	25	12	8	17	20	50	68	40	34	52	619
				11—27	11	27	0	0	0	0	0	0	4	3	1	0	46
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	153	178	25	12	8	17	20	50	72	43	35	52	665
Minya (A)	5	68	5	1—10	87	14	6	3	11	46	14	7	25	41	38	138	430
				11—27	93	3	0	0	0	0	0	0	4	6	11	47	164
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	180	17	6	3	11	46	14	7	29	47	49	185	594

Table B 3.—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES
MERSA MATRUH (A) — FEBRUARY 1967

Time	Pressure Surface Millibar	Wind between specified ranges of direction (000–360)°														Number of calm winds	Total number of observations (TN)	Mean scalar wind speed (knots)											
		345 / 014		015 / 044		045 / 074		075 / 104		105 / 134		135 / 164		165 / 194		195 / 224		225 / 254		255 / 284		285 / 314							
		N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m						
0000 U.T.	Surface	2	12	3	12	0	—	1	9	1	11	1	9	1	1	0	—	3	15	9	9	1	15	1	17	5	28	9	
	1000	4	16	2	8	2	14	0	—	1	24	2	10	0	—	0	—	4	16	4	16	5	15	2	21	2	28	14	
	850	5	14	2	12	1	8	0	—	0	—	0	—	2	14	0	—	4	21	6	24	6	17	2	26	0	28	18	
	700	2	18	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	23	8	32	7	29	6	23	0	26	27	
	600	1	5	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	64	8	43	8	27	7	29	0	25	33	
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	50	11	45	5	41	8	32	0	25	40	
	400	0	—	0	—	0	—	0	—	1	11	0	—	0	—	0	—	2	70	13	59	4	60	5	45	0	25	55	
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	93	11	78	5	41	4	60	0	21	66	
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	78	7	74	2	53	0	14	72	
	150	1	33	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	53	3	44	0	—	0	—	0	5	44	
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	42	0	—	0	—	0	3	42	
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	13	0	—	0	—	0	1	13	
	60	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	16	0	—	0	—	0	1	16	
	50	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	10	0	—	0	—	0	—	0	1	10	
	40	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	20	0	—	0	—	0	1	1	20
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	5	12	7	12	3	12	0	—	0	—	1	8	2	8	0	—	2	16	3	15	2	24	3	14	0	28	13	
	1000	5	11	2	18	3	10	0	—	0	—	1	16	0	—	1	6	2	10	2	21	5	21	6	18	1	28	15	
	850	1	11	2	12	3	4	0	—	0	—	0	—	0	—	1	28	2	20	7	23	5	21	6	17	1	28	17	
	700	2	14	1	8	0	—	0	—	0	—	0	—	0	—	0	—	3	29	9	38	6	32	7	22	0	28	29	
	600	1	14	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	58	11	43	9	34	6	28	0	28	36	
	500	1	16	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	38	10	51	8	37	3	45	0	26	43	
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	54	11	68	9	42	3	46	0	25	55	
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	109	5	79	9	50	3	66	0	18	64	
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	94	4	68	6	74	1	85	0	13	76	
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	90	2	63	4	58	1	74	0	8	65	
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	77	2	48	1	69	0	4	60	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the wind has been observed from the range of direction during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

Table B 3 (contd.).—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES
HELWAN—FEBRUARY 1967

Time	Pressure Surface Millibar	Wind between specified ranges of direction (000—360)°															Number of calm winds	Total number of observations (TN)	Mean scalar wind speed (knots)								
		345		015		045		075		105		135		165		195		225		255		285		315			
		N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m				
0000 U.T.	Surface	8	8	9	9	8	7	2	6	2	4	2	4	0	—	0	—	1	6	2	4	1	4	3	28	6	
	1000	8	15	5	17	2	13	2	9	0	—	0	—	1	7	0	—	1	4	2	10	1	8	1	18	12	
	850	8	15	4	14	1	8	0	—	0	—	0	—	1	11	0	—	3	20	4	22	7	17	5	19	0	
	700	2	14	1	9	1	5	0	—	0	—	0	—	0	—	1	22	3	20	10	36	6	23	3	30	0	
	600	2	19	0	—	0	—	0	—	0	—	0	—	0	—	1	33	11	45	8	38	5	25	0	27	37	
	500	2	47	0	—	0	—	0	—	0	—	0	—	0	—	3	39	10	54	8	50	3	34	0	26	48	
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	102	12	67	5	93	4	55	0	23	61	
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	60	7	68	1	42	0	14	63	
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	75	3	70	4	105	0	—	0	8	88	
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	91	0	—	0	—	0	4	91	
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	108	0	—	0	—	0	1	108	
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
1200 U.T.	Surface	4	11	4	13	2	12	0	—	0	—	1	3	0	—	4	10	2	4	3	6	3	8	5	9	0	
	1000	3	14	4	22	2	17	0	—	0	—	0	—	1	33	0	—	5	20	5	15	4	12	4	19	14	
	850	2	14	3	13	3	17	0	—	0	—	0	—	0	—	3	26	9	30	6	22	7	23	0	28	15	
	700	1	11	2	4	0	—	0	—	0	—	0	—	0	—	1	46	6	48	8	38	10	31	3	21	0	
	600	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	63	14	57	8	36	3	42	0	28	49	
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	79	14	64	5	48	2	44	0	24	62	
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	7	58	6	47	1	100	0	14	58	
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	62	2	102	0	—	0	8	72	
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	64	0	—	3	78	2	113	0	—	6	87
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	86	4	66	0	—	0	—	0	5	70	
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	100	0	—	0	—	0	4	100	
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	73	0	—	0	—	0	1	73	
	60	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	—	—	—	—	—	—	—	—		
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		

N = The number of cases the winds has been observed from the range of direction during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

Table B 3 (contd.).—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES

ASWAN (A)—FEBRUARY 1967

Time	Pressure Surface Millibar	Wind between specified ranges of direction (000—300)°																Number of calm winds	Total number of observations (TN)	Mean scalar wind speed (knots)										
		345 / 014		015 / 044		045 / 074		075 / 104		105 / 134		135 / 164		165 / 194		195 / 224		225 / 254		255 / 284		285 / 314								
		N m	(ff) m	N m	(ff) m	N m	(ff) m	N m	(ff) m	N m	(ff) m	N m	(ff) m	N m	(ff) m	N m	(ff) m	N m	(ff) m	N m	(ff) m	N m	(ff) m							
0000 U.T.	Surface	10	8	7	7	0	—	0	—	1	3	1	1	0	—	2	8	0	—	0	—	1	3	6	9	0	28	7		
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
	850	4	15	2	8	1	9	2	7	0	—	0	—	0	—	0	—	2	18	6	17	3	10	8	12	0	28	13		
	700	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	27	13	14	9	23	1	14	0	27	24		
	600	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	58	14	30	8	32	0	—	0	26	35		
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	48	17	48	5	35	0	—	0	25	45		
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	77	14	52	6	67	0	—	0	24	60		
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	87	13	76	7	101	0	—	0	24	89		
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	103	10	102	3	100	0	—	0	16	102		
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	74	6	68	1	53	0	—	0	10	67		
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	38	2	38	0	—	0	4	38		
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
1200 U.T.	Surface of station	14	11	9	10	0	—	0	—	0	—	0	—	0	—	1	3	1	3	0	—	0	—	3	4	0	28	10		
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
	850	4	16	2	12	2	11	0	—	0	—	0	—	0	—	0	—	1	12	2	15	3	20	4	12	8	15	1	27	14
	700	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	45	1	25	11	28	10	21	4	15	0	27	24
	600	0	—	0	—	0	—	0	—	1	39	0	—	0	—	0	—	3	58	14	30	10	33	0	—	0	28	34		
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	7	49	18	42	3	62	0	—	0	28	46		
	400	9	—	0	—	0	—	0	—	0	—	0	—	0	—	1	24	0	—	4	78	18	67	5	67	0	—	0	28	67
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	88	16	94	5	98	0	—	0	25	93		
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	86	7	114	5	104	0	—	0	16	104		
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	85	3	53	1	88	0	—	0	6	70		
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	28	1	61	0	—	0	5	35		
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	10	0	—	0	—	0	—	0	1	10		
	60	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	24	0	—	0	1	24		
	50	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	10	0	—	0	—	0	1	10		
	40	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	15		
	30	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	18	0	—	0	—	0	—	0	—	0	1	18		
	20	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	21	0	—	0	—	0	—	0	—	0	1	21		
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		

N = The number of cases the wind has been observed from the range of direction during the month.

TN = The total number of cases the wind has been observed for all direction during the month.

REVIEW OF AGRO-METEOROLOGICAL STATIONS

EL KASR—FEBRUARY 1967

This month was mild as regards air temperature but appreciably less rainy than normal. Mean daily air temperature at 2 metres height above ground was equal to the normal value while total rainfall was 12.2 mm below normal. The month was characterised by a moderate cold wave in the period 14th - 17th which was associated with the lowest maximum air temperature for the month on 17th, and the lowest value of vapour pressure on the 15th.

The extreme maximum soil temperatures at depths between 2 and 100cm were lower than the corresponding values of February 1966, by values ranging between 2.5°C at 2 and 5cm depth and 0.5°C at 100 cm depth. The extreme minimum values were lower than the corresponding values of last February by values ranging between 2.9°C at 5cm depth and 0.3°C at 100 cm depth.

Mean daily pan evaporation was 0.49 mm. higher than the corresponding value of February 1966. Total actual duration of bright sunshine was 38.1 hours lower than the corresponding value of last February.

TAHRIR—FEBRUARY 1967

This month was colder, slightly more humid and less rainy than February 1966. Mean daily air temperature at 2 metres above ground and total rainfall were 1.9°C and 2.2 mm respectively lower; while mean daily relative humidity was 2% higher, than the corresponding values of last February. The month was characterised by two moderate cold waves in the periods 1st - 6th and 10th - 18th.

The extreme maximum soil temperatures at depths between 2 and 100 cm were lower than the corresponding values of February 1966 by values ranging between 4.0°C at 5cm depth and 1.0°C at 100cm depth. The extreme minimum soil temperature at 2cm depth was 0.2°C higher than the corresponding value of last February, while at other depths the values were lower by values ranging between 1.8°C at 10cm depth and 0.8°C at 100cm depth.

Mean daily pan evaporation was 0.49mm lower than the corresponding value of February 1966.

BAHTIM—FEBRUARY 1967

The month was mild as regards air temperature but was less rainy than normal. It was characterised by two moderate cold waves in the periods 1st - 7th and 12th - 18th and a cold spell on 24th.

GIZA—FEBRUARY 1967

This month was mild as regards air temperature and relative humidity but was less rainy than normal. Mean daily air temperature at 2 metres above ground, mean daily relative humidity and total rainfall were below normal by 0.1°C, 2% and 3.3mm respectively. The month was characterised by two moderate cold waves in the periods 1st-7th and 12th - 18th and a cold spell on 24th.

Minimum air temperature at 5 cm above grass fell below zero on one day (-0.4°C on the 18th) against 4 days in February 1966.

The extreme maximum soil temperatures at depths from 2 to 100 cm in the dry-field were lower than the corresponding values of last February by values ranging between 5.0°C at 2cm depth and 0.6°C at 100cm depth. The extreme minimum soil temperature at 2cm depth was 2.6°C higher than the corresponding value of February 1966, while at other depths the values were lower than the corresponding values of last February by values ranging between 1.6°C at 20cm depth and 0.4°C at 100cm depth.

Mean daily pan evaporation was 0.09mm. higher than the corresponding value of February 1966. Total potential evapo-transpiration was 8.1 mm lower than the corresponding value of last February. Total actual duration of bright sunshine was 14.5 hours lower than the corresponding value of February 1966.

KHARGA—FEBRUARY 1967

This month was slightly warmer than normal . Mean daily air temperature at 2 metres above ground was 0.5°C above normal. The total amount of rainfall was 0.3mm below normal. The month was characterised by two moderate warm spells on 10th and 13th; the former was associated with the highest value of maximum air temperature and the lowest value of relative humidity during the month. Two moderate cold waves occurred in the periods 1st - 6th and 15th - 25th; the former was associated with the lowest value of maximum air temperature during the month.

The extreme maximum soil temperatures at depths between 5 and 100cm were lower than the corresponding values of February 1966, by values ranging between 0.9°C at 50cm depth and 0.2°C at 100cm depth. At 2cm depth the extreme maximum value was equal to that of last February. The extreme minimum soil temperatures at different depths were lower than the corresponding values of February 1966, by values ranging between 2.6°C at 10cm depth and 0.32 at 100cm depth.

Mean daily pan evaporation was 0.72mm. higher than the corresponding value of last February . Total actual duration of bright sunshine was almost equal to the corresponding value of February 1966.

**Table C 1.—AIR TEMPERATURE AT 2 METRES ABOVE GROUND
FEBRUARY — 1967**

STATION	Air Temperature (°C)					Mean Duration in hours of daily air temperature above the following values										
	Mean Max.	Mean Min.	Mean of the day	Night time mean	Day time mean	-5°C	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C
El Kasr	18.1	8.2	13.2	11.3	15.1	24.0	24.0	24.0	20.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0
Tahrir	19.5	7.0	12.7	10.0	15.4	24.0	24.0	23.7	17.1	7.6	1.0	0.0	0.0	0.0	0.0	0.0
Bahtim	19.4	4.5	11.6	8.0	15.0	24.0	24.0	21.5	13.8	6.9	1.2	0.0	0.0	0.0	0.0	0.0
Giza	19.4	7.3	13.5	11.1	15.5	24.0	24.0	24.0	19.0	9.0	2.0	0.0	0.0	0.0	0.0	0.0
Kharga	23.1	8.1	15.7	12.8	18.5	24.0	24.0	24.0	21.0	13.0	5.0	1.0	0.0	0.0	0.0	0.0

**Table C 2.—ABSOLUTE VALUES OF AIR TEMPERATURE AT 2 METRES ABOVE GROUND,
ABSOLUTE MINIMUM AIR TEMPERATURE AT 5cms ABOVE GROUND OVER DIFFERENT FIELDS**

FEBRUARY — 1967

STATION	Max. Temp. at 2 metres				Min. Temp. at 2 metres				Min. Temp. at 5 cms. above			
	Highest		Lowest		Highest		Lowest		Dry Soil		Grass	
	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date
El Kasr	21.5	13	13.8	17	13.4	15	4.4	18	1.8	18	—	—
Tahrir	23.4	25	16.3	17	9.8	22	2.8	6	1.0	6	—	—
Bahtim	22.1	25, 27	16.0	15, 17	8.3	10	0.3	6	-1.2	7	—	—
Giza	22.9	25	16.0	2	9.9	15, 22	3.6	6	-0.6	18	-0.4	18
Kharga	29.6	10	18.4	3	15.5	14	2.7	7	1.0	7	—	—

Table C 3.—(SOLAR + SKY) RADIATION, DURATION OF BRIGHT SUNSHINE, RELATIVE HUMIDITY & VAPOUR PRESSURE AT 2 METRES ABOVE GROUND, EVAPORATION & RAINFALL

FEBRUARY — 1967

STATION	Solar+Sky Radiation gm. cal/cm ²	Duration of Bright Sunshine (hours)			Relative Humidity %				Vapour Pressure (mms)					Evaporation(mms)	Rainfall (mm)				
		Total	Actual	Total Possible monthly	%	Mean of day	1200 U.T.	Lowest	Date	Mean of day	1200 UT	Highest	Date	Lowest	Date	Piche	Pan class (A)	Total Amount monthly	Max. fall. in one day
El Kasr	273.4	192.8	309.6	62	68	56	30	18	7.6	8.0	11.3	8	2.1	15	8.2	4.92	6.4	3.9	11
Tahrir	356.3	208.1	311.1	87	70	49	24	8.9	7.4	7.5	10.8	23	4.4	19	4.8	3.99	3.0	1.2	4
Bahtim	—	208.9	311.1	67	67	47	×	×	6.7	7.2	×	×	×	×	5.0	—	0.9	0.9	4
Giza	357.1	215.2	311.1	69	62	44	×	×	7.0	6.9	×	×	×	×	5.6	4.8	1.3	0.9	4
Kharga	408	277.0	316.2	88	42	27	9	10	5.3	5.2	9.9	16	2.5	10	12.0	8.64	0.0	0.0	—

**TABLE C 4.—EXTREME SOIL TEMPERATURE AT DIFFERENT DEPTHS
IN DIFFERENT FIELDS (cms)**

FEBRUARY — 1967

STATION	Highest (H) Lowest (L)	Extreme soil temperature (°C) in dry field at different depths (cms.)									Extreme soil temperature (°C) in grass field at different depths (cms.)								
		2	5	10	20	50	100	200	300		2	5	10	20	50	100	200	300	
Elkasr	H	26.3	23.4	20.5	17.8	16.6	17.0	19.2	—	—	—	—	—	—	—	—	—	—	
	L	5.2	5.8	7.6	10.8	13.8	16.1	18.7	—	—	—	—	—	—	—	—	—	—	
Tahrir	H	30.9	26.4	22.6	19.6	17.0	17.8	19.6	21.5	—	—	—	—	—	—	—	—	—	
	L	6.5	7.3	8.6	11.3	14.2	16.6	19.0	20.6	—	—	—	—	—	—	—	—	—	
Bahtim	H	38.9	23.8	21.2	17.3	16.6	17.6	—	—	—	—	—	—	—	—	—	—	—	
	L	7.2	8.4	10.6	13.3	14.1	16.4	—	—	—	—	—	—	—	—	—	—	—	
Giza	H	40.0	25.9	21.1	19.4	19.2	20.1	23.4	24.8	20.9	18.6	16.9	15.4	15.2	—	—	—	—	
	L	6.8	8.4	12.2	14.8	17.0	19.6	22.2	24.4	6.7	7.8	9.7	11.4	13.4	—	—	—	—	
Kharga	H	34.0	30.0	24.4	21.8	21.6	22.5	25.8	28.0	—	—	—	—	—	—	—	—	—	
	L	4.5	7.1	11.2	15.8	18.7	21.8	24.8	26.8	—	—	—	—	—	—	—	—	—	

TABLE C 5.—SURFACE WIND

FEBRUARY — 1967

STATION	Wind Speed m/sec at 1½ metres			Days with surface wind speed at 10 metres.								Max. Gust (knots) at 10 metres	
	Mean of the day	Night time mean	Day time mean	≥ 10 knots	≥ 15 knots	≥ 20 knots	≥ 25 knots	≥ 30 knots	≥ 35 knots	≥ 40 knots	Value (knots)		Date
Elkasr	4.0	3.3	4.7	—	—	—	—	—	—	—	—	—	—
Tahrir	2.6	1.8	3.4	27	16	3	1	0	0	0	38	20	
Bahtim	2.2	1.6	2.9	—	—	—	—	—	—	—	—	—	20
Giza	2.2	1.6	2.8	25	18	1	0	0	0	0	29	—	
Kharga	3.5	2.4	4.6	27	21	8	4	2	0	0	37	28	3

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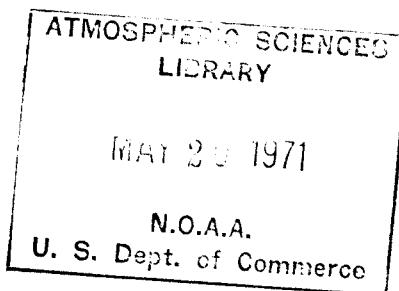
UNITED ARAB REPUBLIC

MONTHLY WEATHER REPORT

VOLUME 10

NUMBER 3

MARCH, 1967



U.D.C. 551, 506.1 (62)

METEOROLOGICAL DEPARTMENT
CAIRO

PUBLICATIONS OF THE METEOROLOGICAL DEPARTMENT OF THE UNITED ARAB REPUBLIC—CAIRO

In fulfilment of its duties as the National Meteorological Service for the U.A.R., the Meteorological Department issues several reports and publications on weather, climate and agrometeorology. The principal publications are described on this page.

Orders for publication should be addressed to :
“The Director General, Meteorological Department, Kubri-el-Qubbeh—CAIRO”.

THE DAILY WEATHER REPORT

This report is printed daily in the Meteorological Department. It contains surface and upper air observations carried by the relevant networks of the Republic and made at the four main synoptic hours of observations (00, 06, 12 and 18 U.T.) ; as well as ship observations over the Eastern Mediterranean and north Red Sea made at the same times.

It also contains two surface synoptic charts at 00 and 12 U.T. and two upper air charts for the standard isobaric surfaces 700 & 500 mbs. at both 00 and 12 U.T.

In compliance with resolution 8 (EC-XIII) of WMO, foreign upper air data included in Cairo Subregional Broadcast are also given in this report.

THE MONTHLY WEATHER REPORT

First issued in 1909, the Monthly Weather Report served to give a brief summary of the weather conditions that prevailed over Egypt during the month, with a table showing the mean values for few meteorological elements and their deviation from the normal values. From 1954 to 1957 this report was in a rapid state of development and extension resulting into a voluminous report on January 1958 giving surface, upper and agro-meteorological data for U.A.R.

THE AGRO-METEOROLOGICAL ABRIDGED MONTHLY REPORT

Gives a review of weather experienced in the agro-meteorological stations of the U.A.R. as well as monthly values of certain elements.

THE ANNUAL REPORT

This report gives annual values and statistics for the various meteorological elements, together with a summary of the weather conditions that prevailed during months of the year.

CLIMATOLOGICAL NORMALS FOR EGYPT

The normals, long averages and statistical data are given in one edition for stations in Egypt from the date of opening of each station up to 1945. A new voluminous edition was issued in March 1968 which brings normals and mean values up till 1960.



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METEOROLOGICAL DEPARTMENT
CAIRO

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GENERAL SUMMARY OF WEATHER CONDITIONS

MARCH 1967

Light rainy in general with few scattered thundery cells.

Local heavy rain in few Mediterranean localities. Widespread gales and sandstorms in several days.

GENERAL DESCRIPTION OF WEATHER

The prevailing weather in the northern parts during this month was rather cold and light rainy in general. Heavy rain associated with thunderstorms fell over few localities in the Mediterranean district round the frontal transits. In the central and southern parts, weather was warm in advance of the transitory Mediterranean secondaries and rather cold otherwise.

Widespread gales and sandstorms were the almost outstanding feature of this month, particularly during the 4th, 20th, 21st, & 26th.

PRESSURE DISTRIBUTION

The outstanding features of pressure distribution on the surface map during this month were :

- The Siberian anticyclone.
- High pressure extending from the Atlantic southeastwards through the Mediterranean & North Africa.
- The northern deep low pressure systems passing through North Urasia.
- Five secondary depressions through the Mediterranean & its vicinities.

The first two secondary depressions originated over Greece on the 2nd & 14th respectively, moved eastwards and their troughs passed through East Mediterranean on the 4th & 16th.

The third secondary depression developed over Central Mediterranean on the 17th, remained quasi-stationary while deepening till the 19th, then it moved slowly eastwards, while a deep desert secondary formed near the western coast of U.A.R. on the 20th. These two secondaries deepened appreciably on the 21st, then amalgamated in one centre which traversed East Mediterranean on the 22nd while filling quickly.

The fourth secondary depression formed over Asia Minor on the 25th and proceeded towards Iraq; its trough traversed East Mediterranean on the 26th.

The last secondary depression originated over Italy on the 29th. It moved eastwards while filling reaching Greece on the last day of the month.

It is noteworthy that no khamsin depressions affected our area during this month, apart from the deep khamsin low which traversed north of U.A.R. on the 20th. Two other khamsin secondaries originated over North Algiers on the 10th & 29th respectively; but they were shallow and filled up before reaching U.A.R.

The barometric pressure in U.A.R was alternatively affected by the transits of the above mentioned Mediterranean depressions or troughs, and the establishment of high pressure over the Mediterranean & North Africa. It experienced corresponding oscillations reaching minima round the 4th, 16th, 21st & 26th respectively.

The important features of pressure distribution over the 700 & 500 mb. upper charts were :

— Deep upper low pressure systems over North Urasia & North Atlantic.

— Secondary upper troughs or lows passing through middle latitudes and traversing U.A.R. round the 4th, 11th, 17th, 24th & 26th.

— Upper high pressure system south of latitude 30 °N.

SURFACE WIND

Surface winds were generally moderate W/SW over the northern & central parts in advance of the travelling Mediterranean troughs, and veered to NWly in their rears. They became fresh and strong during several days mainly over the northern parts, and reached gale force over many places during the period (20th, 22nd).

In the southern parts, the prevailing winds were generally light to moderate Nly & NWly and became fresh to strong during few days.

Gales were reported at Sallum on the 20th & 21st; Sidi Barrani, El Kasr and Mersa Matruh on the 20th; Dabaa on the 4th, 20th, 21st, 22nd & 26th; Alexandria on the 21st, Port Said on the 4th, 21st & 26th ; Ghazza on the 5th, 26th & 27th; Mansoura on the 4th & 28th; Abu Sueir on the 21st & 26th; Fayed on the 4th & 26th; Kabrit and Mostafa Helmi on the 26th; Siwa, Bahariya and Farafra on the 20th and at Hurghada on the 4th, 5th & 12th.

TEMPERATURE

Maximum temperature oscillated slightly round normal in the northern parts most of the month, apart from few short warm periods during which it rose moderately above normal. In the central and southern parts, maximum temperature showed moderate variability round normal. Maximum temperature values ranged most days of the month between 17° & 21 °C in the northern parts, between 18° & 25°C in the central parts and between 23° & 28 °C in the southern parts.

The absolute maximum temperature was 30.9 °C at Kom Ombo and Dakhla on the 3rd & 20th respectively.

Minimum temperature oscillated moderately above normal most days of the month, and its values ranged generally between 6° & 12°C in the northern & southern parts and between 4° & 11 °C in the central parts.

The absolute minimum temperature was 1.3 °C at Dakhla on the 27th.

PRECIPITATION

Light rain in general fell over the northern parts round the periods (4th-7th), (16th-17th) & (22nd-28th), and extended southwards to Cairo during the last period. Rain was heavy and associated with thunderstorms over few scattered localities in the Mediterranean coastal districts round the 4th, 16th, 25th & 28th.

The monthly rainfall exceeded its normal values over few localities in the northern parts, elsewhere, it was subnormal.

The maximum daily rainfall was 22.4 mms at Ras El Teen on the 28th.

The maximum monthly rainfall was 45.0 mms. at Fuka.

M. F. TAHA

Under Secretary of State
Director General
Meteorological Department

**Table A 1. — MONTHLY VALUES OF THE ATMOSPHERIC PRESSURE, AIR TEMPERATURE,
RELATIVE HUMIDITY, BRIGHT SUNSHINE DURATION & PICHE EVAPORATION.**
MARCH — 1967

STATION	Atmospheric Pressure (mbs) M.S.L		Air Temperature °C								Relative Humidity %		Bright Sunshine Duration (Hours)			Piche Evaporation mms. Mean	
			Minimum		Maximum			Dry Bulb		Wet Bulb				Total Actual	Total Possible	%	
	Mean	D.F. Normal or Average	(A) Mean	D.F. Normal or Average	(B) Mean	D.F. Normal or Average	A+B 2	Mean	D.F. Normal or Average	Mean	D.F. Normal or Average	Mean	D.F. Normal or Average	Total Actual	Total Possible	%	
Sallum	1017.0	+ 2.0	19.9	- 1.5	10.1	- 1.0	15.0	14.4	- 2.0	10.1	- 1.7	54	- 1	-	-	7.3	
Mersa Matruh (A)	1016.8	+ 1.2	18.0	- 2.5	9.6	- 0.4	13.8	13.9	- 1.1	10.3	- 1.1	60	- 3	-	-	8.9	
Alexandria . . (A)	1016.3	+ 0.7	19.5	- 1.7	10.3	- 0.9	14.9	14.8	- 1.0	11.0	- 1.2	61	- 5	268.7	371.6	72	8.7
Port Said . . (A)	1015.3	- 0.1	18.3	- 1.9	12.6	- 1.0	15.4	15.1	- 1.3	11.7	- 1.6	64	- 4	241.9	371.6	65	7.0
El Arish	1015.5	+ 0.3	19.1	- 2.1	10.4	- 0.4	14.8	14.7	- 1.5	11.6	- 1.3	67	- 0	-	-	5.1	
Ghazza	1015.0	0.0	18.4	- 1.7	10.6	- 1.0	14.5	14.4	- 1.6	11.3	- 2.1	66	- 6	205.7	371.8	55	4.7
Tanta	1016.0	+ 0.5	20.2	- 3.5	7.8	- 0.5	14.0	13.4	- 2.3	9.9	- 2.0	61	+ 1	274.6	371.8	74	4.9
Cairo (A)	1015.8	+ 0.5	20.8	- 3.1	10.1	- 1.3	15.4	15.1	- 2.5	10.1	- 2.1	49	- 1	-	-	13.6	
Fayoum	1016.9	+ 1.3	22.6	- 2.7	7.3	- 2.7	15.4	14.7	- 3.2	10.2	- 2.0	52	+ 5	-	-	6.1	
Minya (A)	1016.6	+ 1.1	22.9	- 2.9	5.5	- 2.4	14.2	14.1	- 2.5	9.3	- 1.8	49	+ 1	317.0	372.2	85	7.2
Assyout (A)	1016.3	+ 1.4	22.6	- 4.0	8.6	- 2.0	15.6	15.6	- 3.0	9.2	- 1.8	37	+ 5	-	-	12.9	
Luxor (A)	1015.1	+ 1.7	25.3	- 4.0	8.6	- 2.1	17.0	17.5	- 2.6	10.4	- 1.9	34	0	-	-	8.8	
Aswan (A)	1015.4	+ 2.4	26.2	- 4.4	10.4	- 2.9	18.3	18.4	- 3.8	9.4	- 1.7	21	+ 6	-	-	12.9	
Siwa	1017.7	+ 2.1	22.4	- 2.6	6.7	- 1.7	14.6	14.9	- 2.3	9.1	- 1.4	41	+ 4	-	-	9.4	
Bahariya	1017.3	+ 2.9	22.7	- 2.9	7.6	- 1.3	15.2	15.4	- 2.6	9.0	- 1.6	36	0	-	-	8.2	
Farafra	1018.7	+ 2.1	22.7	- 3.9	6.0	- 2.9	14.4	14.6	- 3.9	8.4	- 1.3	37	+ 10	-	-	11.6	
Dakhla	1018.0	+ 3.4	24.0	- 3.8	5.5	- 3.8	14.8	15.1	- 3.2	8.3	- 1.3	33	+ 8	-	-	11.8	
Kharga	1018.3	+ 1.8	25.0	- 3.5	8.9	- 2.1	17.0	17.3	- 3.0	9.1	- 2.2	31	+ 2	338.6	371.9	91	14.1
Tor	1015.2	+ 1.4	22.0	- 2.3	10.4	- 2.2	16.2	16.9	- 0.9	11.7	- 1.7	50	0	-	-	12.4	
Hurghada	1014.3	+ 0.9	22.7	- 0.7	10.9	- 1.5	16.8	17.3	- 1.5	10.7	- 2.5	38	- 12	-	-	16.2	
Quseir	1015.2	+ 1.7	22.8	- 2.0	14.2	- 2.3	18.5	18.8	- 2.0	12.0	- 2.3	39	- 7	-	-	14.8	

Table A2.— MAXIMUM AND MINIMUM AIR TEMPERATURES

MARCH - 1967

Station	Maximum Temperature °C					Mean	D. From Normal	Minimum Temperature °C					No. of Days with Min. Temp.						
	Highest	Date	Lowest	Date	No. of Days with Max-Temp.					Highest	Date	Lowest	Date						
					>25	>30	>35	>40	>45				<10	<5	<0	<-5			
Sallum	27.5	30	16.0	7	1	0	0	0	0	9.4	—	13.4	31	6.9	16	17	0	0	0
Mersa Matruh (A)	26.0	31	15.9	8	1	0	0	0	0	13.0	10	6.4	18	20	0	0	0	0	
Alexandria (A)	23.8	20	16.0	26	0	0	0	0	0	13.2	13	6.6	10	13	0	0	0	0	
Port Said (A)	23.9	15	14.1	26	0	0	0	0	0	14.8	14	8.6	26	1	0	0	0	0	
El Arish	26.8	15	14.0	26	2	0	0	0	0	9.0	21	7.2	9	14	0	0	0	0	
Ghazza.	23.8	15	14.9	6	0	0	0	0	0	9.3	12	7.3	2	14	0	0	0	0	
Tanta	24.6	3	15.6	26	0	0	0	0	0	—	—	12.0	21	4.8	9	28	1	0	0
Cairo (A)	26.2	15	16.1	26	2	0	0	0	0	—	—	14.9	15	6.2	8	13	0	0	0
Fayoum	27.2	14	17.8	26	6	0	0	0	0	5.7	—	11.9	21	3.7	5	29	1	0	0
Minya (A)	27.4	3	18.3	7	5	0	0	0	0	3.5	—	10.0	21	3.0	7	30	14	0	0
Assyout. (A)	27.5	31	18.3	7	5	0	0	0	0	6.8	—	13.4	21	4.8	8	24	1	0	0
Luxor (A)	30.6	3-31	22.0	26	19	3	0	0	0	3.8	—	11.7	13	5.0	8	26	0	0	0
Aswan (A)	30.4	3	22.0	7	21	1	0	0	0	—	—	13.5	17	6.5	8	13	0	0	0
Siwa	28.8	31	19.5	17	5	0	0	0	0	14.7	—	11.5	21	3.2	8	28	8	0	0
Bahariya	28.8	31	19.1	26	6	0	0	0	0	6.0	—	13.0	15	4.3	27	26	3	0	0
Farafra	28.2	14-20	18.9	1	5	0	0	0	0	5.3	—	9.6	26	2.7	19	31	9	0	0
Dakhla	30.9	20	20.4	5	7	1	0	0	0	—	—	10.9	21	1.3	27	29	13	0	0
Kharga	29.0	31	21.6	7	14	0	0	0	0	6.7	—	12.2	21	4.6	6	22	1	0	0
Tor	23.3	15	17.0	7	3	0	0	0	0	—	—	15.0	21	7.3	9	14	0	0	0
Hurghada	27.6	21	18.6	7	4	0	0	0	0	8.7	—	15.0	21	8.6	9	12	0	0	0
Quseir	30.1	21	19.0	5.7	4	1	0	0	0	12.9	—	17.0	16	11.7	6	0	0	0	0

Table A 4. — DAYS OF OCCURRENCE OF MISCELLANEOUS WEATHER PHENOMENA.

MARCH 1967

Station	Precipitation				Frost	Thunderstorm	Mist Vis ≥ 1000 metres	Fog Vis <1000 Metres	Haze Vis ≥ 1000 Metres	Thick Haze Vis <1000 Metres	Dust or Sandstorm Vis ≥ 1000 Metres	Gale	Clear Sky	Cloudy Sky	
	Rain	Snow	Ice. Pellets	Hail											
Sallum (A)	4	0	0	0	0	0	0	0	0	0	7	3	2	10	1
Mersa Matruh (A)	8	0	0	0	0	0	0	0	0	0	4	2	1	5	1
Alexandria (A)	8	0	0	1	0	2	3	3	1	0	5	2	1	6	3
Port Said (A)	8	0	0	0	0	0	0	0	0	0	7	2	3	9	4
Al Arish	8	0	0	0	0	0	0	0	0	0	10	0	0	9	6
Ghazza	8	0	0	0	0	1	0	1	0	0	3	0	3	12	2
Tanta	5	0	0	0	0	0	0	0	0	0	2	3	0	16	2
Cairo (A)	2	0	0	0	0	0	4	1	7	0	8	2	0	15	1
Fayoum	0	0	0	0	0	0	0	0	0	0	4	0	0	—	—
Minya (A)	0	0	0	0	0	0	0	0	0	0	3	0	0	28	0
Assyout. (A)	0	0	0	0	0	0	0	0	0	0	5	0	0	28	0
Luxor (A)	0	0	0	0	0	0	0	0	9	0	5	0	0	26	0
Aswan (A)	0	0	0	0	0	0	0	0	4	0	11	1	0	19	0
Siwa	0	0	0	0	0	0	1	0	2	0	5	1	1	24	0
Bahariya	0	0	0	0	0	0	0	0	0	0	3	2	1	27	0
Farafra	0	0	0	0	0	0	4	0	5	0	5	1	1	—	—
Dakha	0	0	0	0	0	0	0	0	3	0	3	0	0	29	0
Kharga	0	0	0	0	0	0	0	0	3	0	4	0	0	—	—
Tor.	0	0	0	0	0	0	0	0	6	0	20	1	0	26	0
Hurghada	0	0	0	0	0	0	0	0	1	0	4	1	3	27	0
Quseir	0	0	0	0	0	0	0	0	4	0	3	0	0	24	0

Table A 5.—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES
MARCH — 1967

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated													All directions
					345 / 014	015 / 044	045 / 074	075 / 104	105 / 134	135 / 164	165 / 194	195 / 224	225 / 254	255 / 284	285 / 314	315 / 344		
					35	37	67	34	23	11	6	11	30	118	188	167	727	
Sallum	13	1	3	1-10	15	30	67	31	21	10	6	7	18	17	105	61	388	328
				11-27	20	7	0	3	2	1	0	4	12	92	81	106	106	
				28-47	0	0	0	0	0	0	0	0	0	9	2	0	11	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	35	37	67	34	23	11	6	11	30	118	188	167	727	
Mersa Matruh . (A)	5	0	0	1-10	42	42	30	16	9	10	14	15	33	57	33	42	343	373
				11-27	64	8	4	6	3	2	11	5	20	92	38	120	120	
				28-47	0	0	0	0	0	0	1	0	1	17	0	1	20	
				≥48	0	0	0	0	0	0	0	0	0	3	0	0	3	
				All speeds	10	50	34	22	12	12	26	20	54	169	71	163	739	
Alexandria . . . (A)	7	0	0	1-10	86	35	28	23	19	18	19	22	22	28	72	51	423	253
				11-27	2	13	3	3	2	1	4	9	56	36	75	49	1	
				28-47	0	0	0	0	0	0	0	0	8	0	52	1	61	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	88	48	31	26	21	19	23	31	86	64	199	101	737	
Port Said . . . (A)	10	1	5	1-10	66	31	23	9	6	5	9	11	27	24	19	29	264	45
				11-27	51	29	8	7	3	9	9	33	80	99	66	31	31	
				28-47	0	0	0	0	0	0	0	11	0	9	19	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	117	60	36	16	9	14	18	53	107	132	104	60	728	
Tanta	31	0	0	1-10	41	31	50	32	24	11	23	45	109	69	129	53	617	96
				11-27	0	0	1	9	6	0	0	0	14	33	12	21	0	
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	41	31	51	41	30	11	23	45	123	102	141	74	712	
Cairo (A)	18	0	112	1-10	24	24	28	21	19	9	22	27	28	99	44	40	385	223
				11-27	1	34	18	4	3	3	20	25	30	32	46	7	0	
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	6	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	25	58	46	25	22	12	42	52	62	131	92	47	614	
Fayoum	9	3	10	1-10	111	116	10	2	4	15	24	56	102	60	56	36	592	130
				11-27	7	39	0	0	0	1	3	6	17	35	18	4	0	
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	118	155	10	2	4	16	27	62	119	93	74	40	722	
Minya (A)	25	4	10	1-10	96	13	5	1	5	54	10	16	21	44	50	146	461	244
				11-27	78	1	0	0	0	9	1	2	10	6	35	82	0	
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	174	14	5	1	5	63	11	18	31	70	85	228	705	

Table A 5 (contd)—NUMBER IN HOURS OF OCCURRENCE OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES

MARCH — 1967

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated													
					345 / 014	015 / 044	045 / 074	075 / 104	105 / 134	135 / 164	165 / 194	195 / 224	225 / 254	255 / 284	285 / 314	315 / 344	All directions	
Asyout (A)	1	1	19	1-10	8	2	2	3	6	8	8	10	61	224	154	77	563	
				11-27	1	1	0	0	0	1	6	1	4	26	73	47	160	
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	9	3	2	3	6	9	14	11	65	250	227	124	723	
Luxor (A)	0	11	4	1-10	62	30	33	16	30	31	95	61	44	46	123	138	709	
				11-27	2	0	0	0	0	0	0	0	0	0	0	13	5	20
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	64	30	33	16	30	31	95	61	44	46	136	143	729	
Aswan (A)	0	0	10	1-10	203	197	2	3	2	2	4	2	4	3	12	24	458	
				11-27	107	90	0	0	0	0	0	0	0	0	0	79	276	
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	310	287	2	3	2	2	4	2	4	3	12	103	734	
Siwa	19	7	56	1-10	25	32	53	41	30	31	16	21	22	117	99	40	527	
				11-27	5	0	0	2	1	1	0	0	13	56	34	16	128	
				28-47	0	0	0	0	0	2	1	0	1	3	0	0	7	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	30	32	53	43	31	34	17	21	36	176	133	56	662	
Dakhla	2	5	131	1-10	53	27	12	5	9	7	23	40	52	61	72	186	547	
				11-27	2	0	0	2	0	1	4	2	0	0	3	45	59	
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	55	27	12	7	9	8	27	42	52	61	75	231	606	
Kharga	16	5	14	1-10	115	41	24	7	4	5	6	5	6	27	57	158	455	
				11-27	122	8	0	0	0	0	5	1	0	1	7	110	254	
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	237	49	24	7	4	5	11	6	6	28	64	268	709	
Hurghada	2	0	117	1-10	9	9	4	0	1	6	2	1	0	5	44	36	117	
				11-27	170	38	1	0	2	4	7	1	0	2	97	150	472	
				28-47	9	0	0	0	0	0	0	0	0	0	0	27	36	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	188	47	5	0	3	10	9	2	0	7	141	213	625	
Quseir	2	0	3	1-10	49	87	15	7	8	3	4	8	12	57	156	88	488	
				11-27	114	28	0	0	0	0	0	0	0	1	10	98	251	
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	163	113	15	7	8	3	4	8	12	58	163	186	739	

Table B 1.—UPPER AIR CLIMATOLOGICAL DATA
MARCH—1967

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mersa Matruh 0000 U.T.	Surface . . .	31	1017m.b.	1025m.b.	1003m.b.	31	11.5	15.2	7.5	31	7.1
	1000 . . .	31	170	234	53	31	11.8	15.5	9.5	31	6.9
	850 . . .	31	1512	1583	1395	31	3.4	10.4	—1.6	29	—2.7
	700 . . .	30	3071	3169	2938	30	—3.2	0.5	—9.6	14	—13.1
	600 . . .	29	4272	4368	4117	29	—10.7	—5.8	—18.0	4	—27.5
	500 . . .	27	5658	5760	5457	27	—20.3	—16.3	—26.5	4	—26.8
	400 . . .	23	7274	7400	7051	23	—32.2	—28.2	—36.9	4	—37.5
	300 . . .	22	9248	9399	9056	22	—45.5	—38.3	—51.8	—	—
	200 . . .	20	11905	12038	11749	20	—53.3	—47.2	—64.0	—	—
	150 . . .	19	13739	13880	13572	19	—58.1	—54.2	—64.0	—	—
	100 . . .	10	16257	16396	16192	10	—64.3	—57.4	—68.7	—	—
	70 . . .	5	18460	18490	18330	5	—64.4	—58.4	—67.7	—	—
	60 . . .	5	19399	19480	19292	5	—62.4	—57.2	—66.0	—	—
	50 . . .	4	20535	20596	20410	4	—61.3	—56.2	—64.0	—	—
	40 . . .	3	21923	21991	21801	3	—58.9	—55.1	—61.2	—	—
	30 . . .	3	23739	23831	23603	3	—56.1	—53.7	—57.7	—	—
	20 . . .	—	—	—	—	—	—	—	—	—	—
	10 . . .	—	—	—	—	—	—	—	—	—	—
Helwan 0000 U.T.	Surface . . .	31	1000m.b.	1005m.b.	991m.b.	31	11.3	16.1	8.4	31	4.1
	1000 . . .	31	138	181	64	16	10.7	13.9	8.4	16	5.3
	850 . . .	31	1484	1538	1417	29	5.5	12.4	0.0	26	—6.1
	700 . . .	30	3048	3132	2964	30	—2.3	2.2	—8.9	14	—15.8
	600 . . .	30	4255	4358	4152	30	—9.3	—6.0	—16.0	4	—21.0
	500 . . .	30	5642	5758	5514	30	—18.6	—14.9	—24.0	—	—
	400 . . .	30	7268	7392	7116	30	—30.6	—24.0	—35.5	—	—
	300 . . .	29	9261	9422	9084	29	—42.4	—31.9	—50.6	—	—
	200 . . .	28	11443	12128	11751	28	—52.8	—48.0	—66.0	—	—
	150 . . .	28	13762	13942	13611	28	—59.1	—54.8	—65.1	—	—
	100 . . .	25	16282	16431	16135	25	—65.0	—59.1	—68.5	—	—
	70 . . .	18	18457	18457	18320	18	—65.0	—59.2	—70.8	—	—
	60 . . .	17	19405	19496	19327	17	—62.7	—58.0	—66.9	—	—
	50 . . .	13	20551	20637	20475	13	—60.5	—56.9	—63.9	—	—
	40 . . .	12	21950	22038	21871	12	—57.9	—53.3	—62.6	—	—
	30 . . .	9	23790	23878	23698	9	—54.9	—53.9	—63.3	—	—
	20 . . .	6	26418	26479	26319	6	—51.0	—48.1	—52.9	—	—
	10 . . .	2	31970	30977	30962	2	—45.4	—45.0	—45.7	—	—
Aswan 0000 U.T.	Surface . . .	27	991m.b.	995m.b.	985m.b.	27	14.4	18.6	11.0	27	—2.5
	1000 . . .	27	115	151	66	—	—	—	—	—	—
	850 . . .	27	1489	1528	1457	27	12.6	18.9	6.1	16	—7.8
	700 . . .	27	3095	3136	3029	27	4.6	9.8	1.0	9	—11.9
	600 . . .	26	4332	4389	4250	26	—3.0	0.4	—11.0	8	—13.2
	500 . . .	27	5755	5819	5656	27	—11.8	—8.4	—16.9	10	—18.5
	400 . . .	27	7430	7496	7323	27	—22.1	—17.0	—26.7	9	—27.7
	300 . . .	26	9489	9583	9384	26	—34.7	—28.3	—41.8	3	—38.1
	200 . . .	22	12231	12324	12093	22	—52.0	—49.6	—53.7	—	—
	150 . . .	24	14048	14128	13897	24	—64.9	—61.3	—68.0	—	—
	100 . . .	23	16445	16566	16321	23	—74.5	—70.5	—79.7	—	—
	70 . . .	21	18566	18760	18400	21	—70.4	—67.8	—75.2	—	—
	60 . . .	14	19506	19660	19371	14	—66.1	—62.0	—69.4	—	—
	50 . . .	14	20626	20786	20491	14	—61.4	—59.1	—64.3	—	—
	40 . . .	11	22023	22186	21874	11	—56.8	—55.0	—60.1	—	—
	30 . . .	10	23861	24014	23721	10	—53.8	—49.0	—57.2	—	—
	20 . . .	7	26490	26614	26384	7	—49.5	—45.3	—51.6	—	—
	10 . . .	—	—	—	—	—	—	—	—	—	—

N = The number of cases the element has been observed during the month.

* The atmospheric pressure corrected to the elevation of the radiosonde station.

Table B 1 (contd.).—UPPER AIR CLIMATOLOGICAL DATA
MARCH—1967

Station	Pressure Surface Millibar	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mersa Matruh 1200 U.T.	Surface . . .	31	m.b.	m.b.	m.b.	31	17.6	23.0	15.3	31	8.4
	1000 . . .	31	1017	1024	1004	31	15.9	22.0	12.3	31	7.0
	850 . . .	31	170	232	54	31	5.2	12.2	0.2	27	— 4.3
	700 . . .	31	1530	1589	1405	31	— 2.7	2.1	— 9.4	10	— 15.7
	600 . . .	31	3082	3176	2937	31	— 10.1	— 6.0	— 18.0	8	— 20.6
	500 . . .	31	4287	4397	4110	31	— 19.6	— 14.9	— 26.4	2	— 22.6
	400 . . .	31	5668	5788	5534	31	— 31.4	— 25.7	— 35.8	1	— 39.0
	300 . . .	31	7288	7430	7050	31	— 44.0	— 37.5	— 49.3	—	—
	200 . . .	31	9269	9461	9045	31	— 51.5	— 47.0	— 62.2	—	—
	200 . . .	24	11967	12116	11743	24	— 57.5	— 53.2	— 63.2	—	—
	150 . . .	23	13819	13940	13609	23	— 64.0	— 61.4	— 67.0	—	—
	100 . . .	14	16348	16456	16238	14	— 61.5	— 59.1	— 64.7	—	—
	70 . . .	6	18530	18620	18350	6	— 60.0	— 57.9	— 63.0	—	—
	60 . . .	4	19500	19546	19421	4	— 57.5	— 56.2	— 59.9	—	—
	50 . . .	4	20615	20678	20565	4	—	—	—	—	—
	40 . . .	—	—	—	—	—	—	—	—	—	—
	30 . . .	—	—	—	—	—	—	—	—	—	—
	20 . . .	—	—	—	—	—	—	—	—	—	—
	10 . . .	—	—	—	—	—	—	—	—	—	—
Helwan 1200 U.T.	Surface . . .	30	m.b.	m.b.	m.b.	30	19.7	25.2	15.6	30	0.3
	1000 . . .	30	999	1004	991	30	19.4	23.3	15.5	12	2.0
	850 . . .	30	129	174	62	12	6.5	12.8	1.1	24	— 4.6
	700 . . .	30	1493	1548	1423	29	— 1.2	3.0	— 7.6	11	— 18.2
	600 . . .	30	3059	3143	2968	30	— 8.4	— 3.7	— 12.7	3	— 21.9
	500 . . .	29	4272	4375	4162	30	— 17.7	— 14.0	— 21.8	1	— 23.1
	400 . . .	29	5667	5785	5539	29	— 29.4	— 24.4	— 35.2	2	— 38.2
	300 . . .	29	7296	7428	7169	29	— 41.5	— 30.8	— 48.3	—	—
	200 . . .	26	9296	9442	9161	26	— 51.2	— 46.6	— 63.3	—	—
	200 . . .	26	11999	12183	11842	26	— 58.5	— 55.2	— 64.0	—	—
	150 . . .	25	13833	13997	13683	25	— 64.0	— 60.3	— 69.4	—	—
	100 . . .	23	16345	16518	16185	23	— 62.0	— 56.6	— 68.5	—	—
	70 . . .	17	18546	18690	18420	17	— 61.4	— 58.9	— 65.3	—	—
	60 . . .	15	19482	19638	19355	15	— 57.6	— 53.1	— 62.0	—	—
	50 . . .	14	20624	20792	20503	14	— 53.7	— 48.8	— 58.6	—	—
	40 . . .	12	22030	22089	21932	12	— 50.1	— 48.0	— 55.2	—	—
	30 . . .	11	23887	23960	23802	11	— 46.9	— 43.6	— 49.9	—	—
	20 . . .	5	26542	26604	26430	5	—	—	—	—	—
	10 . . .	—	—	—	—	—	—	—	—	—	—
Aswan 1200 U.T.	Surface . . .	30	m.b.	m.b.	m.b.	30	24.6	29.5	20.2	30	— 1.0
	1000 . . .	30	991	996	987	30	—	—	—	—	—
	850 . . .	30	114	159	90	—	—	—	—	17	— 7.0
	700 . . .	30	1503	1547	1475	30	13.1	17.9	7.3	5	— 14.1
	600 . . .	29	3109	3180	3024	29	5.1	9.5	1.5	8	— 16.1
	500 . . .	29	4352	4408	4300	29	— 4.9	2.4	— 6.8	9	— 20.8
	400 . . .	26	5716	5850	5698	26	— 11.3	— 6.4	— 16.9	6	— 29.2
	300 . . .	26	7471	7557	7356	26	— 21.7	— 15.8	— 26.0	1	— 38.2
	200 . . .	25	9526	9648	9428	26	— 34.0	— 29.0	— 40.0	—	—
	200 . . .	25	12275	12428	12133	25	— 50.9	— 47.4	— 56.9	—	—
	150 . . .	24	14103	14284	13965	24	— 62.8	— 57.8	— 69.7	—	—
	100 . . .	24	16558	16780	16361	24	— 70.9	— 64.4	— 79.9	—	—
	70 . . .	16	18691	18920	18470	16	— 68.5	— 62.6	— 72.4	—	—
	60 . . .	13	19616	19846	19395	13	— 64.3	— 60.0	— 66.4	—	—
	50 . . .	13	20749	20979	20523	13	— 57.7	— 53.0	— 61.4	—	—
	40 . . .	8	22196	22399	22029	8	— 52.6	— 49.5	— 56.6	—	—
	30 . . .	8	24070	24287	23889	8	— 48.6	— 45.6	— 52.5	—	—
	20 . . .	5	26896	26815	26565	5	— 43.7	— 38.8	— 47.0	—	—
	10 . . .	—	—	—	—	—	—	—	—	—	—

* N = The number of cases the element has been observed during the month.
The atmospheric pressure corrected to the elevation of the radiosonde station.

Table B 2.—MEAN AND EXTREME VALUES OF THE FREEZING LEVEL AND THE TROPOPAUSE.
THE HIGHEST WIND SPEED IN THE UPPER AIR

MARCH—1967

Station	Freezing level									First Tropopause									Highest wind speed				
	Mean			Highest			Lowest			Mean			Highest			Lowest							
	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Direction (000—360)°	Speed in Knots	
0000 U.T.	(N)	(N)	(N)							(N)	(N)	(N)											
	Mersa Matruh (A)	2197 (31)	767 (31)	-6.0 (24)	3220	687	-14.9	1200	884	-3.0	10543 (19)	253 (19)	-52.7 (19)	14770	128	-64.4	8470	335	-40.3	10750	252	276	166
	Helwan	2367 (30)	761 (30)	-8.0 (20)	3430	676	—	1485	850	-1.4	11289 (25)	113 (25)	-53.0 (25)	16309	100	-67.7	8320	346	-31.3	10720	245	270	150
1200 U.T.	Aswan . . . (A)	3835 (27)	639 (27)	-12.0 (7)	4390	599	-17.7	2940	711	—	15997 (22)	109 (22)	-72.2 (22)	17876	80	-75.2	14970	130	-71.0	9800	281	270	148
	Mersa Matruh (A)	2415 (31)	764 (31)	-8.1 (18)	3460	672	—	1550	844	—	10435 (24)	258 (24)	-50.2 (24)	15030	123	-65.4	8600	332	-37.5	10950	236	262	194
	Helwan	2617 (30)	742 (30)	-8.6 (17)	3600	655	—	1620	833	-4.7	10945 (22)	242 (22)	-51.8 (22)	15410	117	-65.1	7670	273	-38.3	14580	133	280	148
	Aswan . . . (A)	4016 (29)	625 (29)	-16.7 (7)	4780	570	—	3410	670	—	15778 (22)	114 (22)	-70.1 (22)	17240	89	-69.7	14320	146	-66.4	13720	164	270	165

N = The Number of cases the element has been observed during the month.

Table B 3.—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES.
MERSA MATRUH (A)—MARCH 1967

Time	Pressure Surface (Millibar)	Wind between ranges of direction (000—360)°													Number of Calm winds	Total Number of Observations (TN)	Mean Scalar wind Speed (Knots)											
		345		015		045		075		105		135		165		195		225		255		285						
		/	014	/	044	/	074	/	104	/	134	/	164	/	194	/	224	/	254	/	284	/	314	/	344			
		N	(ff)	N	(ff)	N	(ff)	N	(ff)	N	(ff)	N	(ff)	N	(ff)	N	(ff)	N	(ff)	N	(ff)	N	(ff)	N	m	m	m	
0000 U.T.	Surface	5	16	1	7	0	—	2	6	1	6	0	—	2	8	2	8	2	6	14	12	0	—	2	11	0	31	11
	1000	2	18	2	11	1	8	0	—	0	—	1	6	1	17	0	—	4	20	4	20	7	15	5	20	0	27	17
	850	1	15	2	8	1	13	1	11	0	—	0	—	0	—	1	17	1	41	5	36	6	23	9	22	0	27	23
	700	2	14	1	9	0	—	0	—	0	—	0	—	0	—	2	14	9	29	4	29	8	32	0	26	27	26	
	600	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	40	6	25	8	36	6	31	0	22	32		
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	61	2	26	11	38	5	44	0	21	41		
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	64	6	66	10	41	1	54	0	19	52		
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	80	6	61	6	70	3	44	0	17	64		
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	92	5	100	6	102	2	56	0	15	94		
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	90	3	66	6	79	1	33	0	11	72		
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	67	1	76	2	34	1	40	0	5	50		
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	6	1	15	0	—	0	—	0	2	10		
	60	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	9	0	—	0	1	9		
	50	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	9	0	—	0	1	9		
	30	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	8	0	—	0	—	0	—	0	1	8		
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
1200 U.T.	Surface	6	9	1	11	2	12	1	11	0	—	0	—	1	22	0	—	1	24	5	24	1	21	13	15	0	31	18
	1000	4	13	0	—	0	—	0	—	0	—	0	—	1	25	1	27	1	11	3	30	10	21	8	20	2	30	19
	850	2	15	1	18	0	—	1	8	0	—	1	18	0	—	1	30	3	25	5	20	7	25	7	18	2	30	19
	700	1	17	1	11	0	—	0	—	0	—	0	—	1	27	1	9	1	35	11	25	6	28	7	29	1	30	24
	600	1	23	2	18	0	—	0	—	0	—	0	—	0	—	1	70	3	23	7	33	10	29	5	44	0	29	32
	500	1	50	0	—	0	—	0	—	0	—	0	—	0	—	1	82	1	51	9	41	11	37	5	38	0	28	41
	400	0	—	1	36	0	—	0	—	0	—	0	—	0	—	1	76	2	37	7	62	10	54	7	44	0	28	52
	300	0	—	1	40	0	—	0	—	0	—	0	—	0	—	0	—	3	77	9	81	12	72	3	68	0	28	74
	200	1	40	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	9	91	8	95	0	—	0	18	90
	150	1	33	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	8	77	4	65	0	—	0	13	70
	100	1	47	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	44	1	37	0	—	0	6	43
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	4	0	—	0	—	0	—	1	4	
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

N = The number of cases the element has been observed during the month,

TN = The total number of cases the wind has been observed for all directions during the month,

Ta 3.(contd.)—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN
SCALA WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES.
HELWAN—MARCH 1967

Time	Pressure Surface (Millibar)	Wind between ranges of direction (000—360)°														Number of Calm winds	Total Number of Observations (T N)	Mean Scalar wind Speed (Knots)										
		345		015		045		075		105		135		165		195		225		255								
		N	m	N	m	N	m	N	m	N	m	N	m	N	m	N	m	N	m	N	m							
0000 U.T.	Surface	5	4	3	9	1	18	4	7	1	6	2	4	0	—	1	10	1	3	3	3	1	11	7	6	2	31	6
	1000	6	9	3	15	2	18	2	6	0	—	0	—	0	—	0	—	0	—	1	5	0	—	2	4	0	16	10
	850	2	10	3	10	1	12	1	7	0	—	0	—	1	5	0	—	4	20	5	23	11	20	3	17	0	31	18
	700	1	15	1	14	1	14	0	—	0	—	0	—	0	—	0	—	2	40	10	31	7	32	8	22	0	30	28
	600	0	—	1	13	0	—	0	—	0	—	0	—	0	—	0	—	3	54	9	37	11	35	5	34	0	29	37
	500	1	31	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	36	11	55	6	49	4	48	0	25	46
	400	1	38	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	87	7	56	5	49	4	27	0	20	49
	300	1	46	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	77	7	73	5	61	0	—	0	14	67
	250	1	51	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	90	2	86	0	—	0	9	85
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	79	1	66	1	77	0	5	76
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	96	0	—	1	83	0	2	90
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	120	0	1	120
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
1200 U.T.	Surface	3	10	5	11	0	—	0	—	0	—	0	—	0	—	5	12	4	13	6	14	3	16	4	10	0	30	13
	1000	3	11	5	14	0	—	0	—	0	—	0	—	0	—	0	—	1	9	0	—	2	15	1	15	0	12	13
	860	3	13	4	13	1	4	1	6	0	—	0	—	1	10	0	—	6	20	7	17	5	21	2	8	0	30	19
	700	2	7	1	16	0	—	0	—	0	—	0	—	0	—	0	—	4	36	10	30	8	27	5	22	0	30	26
	600	1	18	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	62	14	38	12	31	0	—	0	29	36
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	40	13	41	7	44	2	18	0	26	40
	500	1	32	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	51	12	61	8	49	0	—	0	23	55
	300	0	—	1	85	0	—	0	—	0	—	0	—	0	—	0	—	2	92	8	73	3	53	1	22	0	15	69
	200	0	—	0	—	0	—	9	0	—	0	—	0	—	0	—	0	—	6	89	2	55	1	38	0	9	76	
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	98	3	97	3	66	0	7	84		
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	45	1	79	0	—	0	2	62		
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

N = The number of cases the element has been observed during the month,

TN = The total number of cases the wind has been observed for all directions during the month,

Table 3. (contd) - NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES
ASWAN (A) - MARCH 1967

Time	Pressure Surface (Millibar)	Wind between ranges of direction (000-360) ^o														Number of Calm winds	Total Number of Observations (TN)	Mean Scalar wind Speed (Knots)									
		345		015		045		075		105		135		165		195		225		255		285					
		/	014	/	044	/	074	/	104	/	134	/	164	/	194	/	224	/	254	/	284	/	314	/	344		
0000 U.T.	Surface	7	7	10	10	1	8	0	-	0	10	0	-	0	-	0	1	7	0	-	7	9	0	27	9		
	1000	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	850	2	10	4	4	1	13	0	-	1	3	0	-	0	-	1	2	18	3	7	7	16	4	14	0	27	12
	700	1	11	0	-	0	-	0	-	0	-	0	-	0	-	3	29	11	33	8	24	4	12	0	27	26	
	600	0	-	0	-	0	-	0	-	0	-	0	-	0	-	4	62	16	45	2	32	3	16	0	25	41	
	500	0	-	0	-	0	-	0	-	0	-	0	-	0	-	5	70	15	64	3	34	3	41	0	26	59	
	400	0	-	0	-	0	-	0	-	0	-	0	-	0	-	8	75	13	73	4	56	1	63	0	26	70	
	300	0	-	0	-	0	-	0	-	0	-	0	-	0	-	7	91	15	92	3	105	0	-	0	25	103	
	200	0	-	0	-	0	-	0	-	0	-	0	-	0	-	9	93	11	107	1	94	0	-	0	21	101	
	150	0	-	0	-	0	-	0	-	0	-	0	-	0	-	5	86	16	72	0	-	0	0	0	21	80	
	100	0	-	0	-	0	-	0	-	0	-	0	-	0	-	3	45	9	47	2	46	0	-	0	14	46	
	70	0	-	0	-	0	-	0	-	0	-	1	10	0	-	0	-	2	5	2	12	3	8	0	8	9	
	60	0	-	0	-	0	-	1	10	1	6	0	-	1	16	1	20	0	-	0	-	1	6	0	7	8	
	50	0	-	0	-	0	-	0	-	2	16	0	-	0	-	1	10	2	4	2	12	0	-	0	7	10	
	40	0	-	0	-	0	-	1	14	0	-	0	-	5	0	-	0	-	1	9	0	-	1	5	0	4	8
	30	0	-	0	-	0	-	1	6	0	-	0	-	0	-	0	-	1	6	1	12	0	-	0	3	8	
	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
1200 U.T.	Surface	11	10	12	10	0	-	0	-	0	-	0	-	6	-	0	-	1	4	0	-	6	14	0	30	11	
	1000	-	-	-	-	-	-	-	-	-	-	-	-	0	-	3	15	5	17	7	14	11	10	0	30	13	
	850	1	8	2	7	1	11	0	-	0	-	0	-	0	-	3	25	9	27	12	23	3	20	0	28	24	
	700	1	10	0	-	0	-	0	-	0	-	0	-	0	-	3	64	17	40	5	25	2	28	0	27	39	
	600	0	-	0	-	0	-	0	-	0	-	0	-	0	-	5	60	15	52	3	42	1	24	0	24	51	
	500	0	-	0	-	0	-	0	-	0	-	0	-	0	-	8	61	13	72	1	27	2	77	0	24	67	
	400	0	-	0	-	0	-	0	-	0	-	0	-	0	-	5	91	14	98	5	93	0	-	0	24	96	
	300	0	-	0	-	0	-	0	-	0	-	0	-	0	-	5	99	16	101	2	82	0	-	0	23	99	
	200	0	-	0	-	0	-	0	-	0	-	0	-	0	-	3	95	19	79	0	-	0	-	0	22	81	
	150	0	-	0	-	0	-	0	-	0	-	0	-	0	-	6	35	10	45	2	66	0	-	0	18	44	
	100	0	-	0	-	0	-	0	-	0	-	0	-	0	-	1	11	1	9	0	-3	18	2	18	0	8	16
	70	0	-	0	-	0	-	0	-	1	14	0	-	0	-	2	6	0	-	0	-1	17	0	-	0	1	7
	60	2	18	0	-	1	22	0	-	0	-	0	-	2	6	0	-	0	-	1	17	0	-	0	1	7	
	50	0	-	1	8	0	-	0	-	0	-	0	-	0	-	0	-	1	28	3	20	0	-	0	0	5	
	40	0	-	0	-	0	-	0	-	1	10	0	-	0	-	1	10	0	-	0	-	0	-	0	2		
	30	0	-	0	-	0	-	0	-	0	-	0	-	0	-	1	23	1	38	0	-	0	-	0	2		
	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

N = The number of cases the element has been observed during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

REVIEW OF AGRO-METEOROLOGICAL STATIONS

EL KASR—MARCH 1967

This month was colder and less rainy than normal. Mean air temperature at 2 metres above ground and total rainfall were below normal by 0.8 °C and 3.7 mms. respectively.

This month was characterised by a warm spell on 20th which was associated with the highest value of maximum temperature for the month, and 3 cold waves in the periods (4th-14th), (16th-17th) & (21st-29th) with peaks on 8th, 17th and 24th respectively. The first wave was the most intense and was associated with the lowest maximum temperature for the month on the 8th.

The extreme maximum soil temperatures at depths between 2 & 100 cms. were lower than the corresponding values of March 1966 by values ranging between 2.8 °C at 20 cms. depth and 0.3 °C at 100 cms. depth except at 5 cms. depth where the extreme value was 0.8°C higher. The extreme minimum soil temperatures at depths between 2 and 50 cms. were higher than the corresponding values of last March by values ranging between 3.0 °C at 2 cms. depth and 0.5 °C at 50 cms. depth; at 100 cms. depth the extreme minimum value was equal to that of March 1966.

Mean daily pan evaporation was 0.34 mm. lower than the corresponding value of last March. Total actual duration of bright sunshine was 19.7 hours lower than the corresponding value of March 1966.

TAHRIR—MARCH 1967

This month was colder, slightly more humid and more rainy than March 1966. Mean daily air temperature at two metres height above ground was 2.1 °C lower while mean daily relative humidity and total rainfall were 4% and 0.7 mm higher than the corresponding values of last March. The month was characterised by two warm spells on 3rd and 14th which were associated with the highest maximum air temperatures for the month and two long period cold waves occurring in the periods (4th - 2th) and (16th-31st) with peaks on 6th and 24th respectively. The second cold wave was the more severe and was associated with the lowest maximum air temperature for the month on the 24th.

The extreme maximum soil temperature at 2 cm. depth was 2.0°C higher than the corresponding value of March 1966, while the extreme maximum values between 5 and 100 cms. were lower than the corresponding values of last March by values ranging between 1.9 °C at 50 cms. depth and 0.8 °C at 20 cms. depth. The extreme minimum soil temperatures were higher than the corresponding values of March 1966, at 2, 5, 10 cms. depths but lower than these values at 20, 50, 100 cms. depths ; the differences varied between 5.7 °C at 2 cms. depth and — 1.0 °C at 100 cms. depth.

Mean daily pan evaporation was 0.51 mm. lower than the corresponding value of March 1966. Total actual duration of bright sunshine was 1.3 hours higher than the corresponding value of last March.

BAHTIM—MARCH 1967

This month was markedly colder than normal. It was characterised by two pronounced cold waves, the first one occurred in the period 4th to 13th with the absolute minimum air temperature recorded on the 8th. The second wave prevailed between the 16th and the end of the month with the peak on the 26th.

GIZA—MARCH 1967

This month was colder and less rainy than normal. Mean daily temperature at 2 metres height above ground was 2.1 °C below normal, mean daily relative humidity was equal to the normal value and total rainfall was 1.0 mm below normal.

The month was characterised by two warm spells on 3rd and 15th which were associated with the highest maximum air temperatures for month and two long period cold waves occurring in the periods (4th-13th) and (16th-31st), with peaks on 7th & 26th respectively. The second cold wave was the more severe and was associated with the lowest maximum air temperature for the month on the 26th.

The extreme maximum soil temperature at 2 cms. depth was 2.6 °C higher than the corresponding value of March 1966, while the extreme maximum values between 5 and 100cms. were lower than the corresponding values of last March by values ranging from 2.8°C at 5cm. depth to 1.0°C at 100cms. depth. The extreme minimum soil temperatures at 2 and 5cms. depths, were 5.8°C & 1.0°C respectively higher than the corresponding values of last March, while the extreme values at other depths were lower than the corresponding values of March 1966, by values ranging from 1.4°C at 20cms. depth to 0.3°C at 10cms. depth.

Mean daily pan evaporation was 0.23 mm higher than the corresponding value of last March. Total actual duration of bright sunshine was 3.4 hours higher than the corresponding value of March 1967. Total potential evapotranspiration was 7.6 mms. lower than the corresponding value of last March.

KHARGA—MARCH 1967

This month was colder than normal. Mean air temperature at 2 metres above ground was 1.8 °C below normal, the month was characterised by two long period cold waves in the period (4th—14th) and (16th—31st) with peaks on 7th and 26th. The first heat wave was associated with the lowest maximum temperature for the month on the 7th.

The extreme maximum soil temperatures at depths between 2 and 100 cms. were lower than the corresponding values of March 1966, by values varying between 0.4 °C at 2 cms. depth and 0.7 °C at 100 cms. depth. The extreme minimum soil temperatures were lower than the corresponding values of last March by values varying between 3.2 °C at 2 cms. depth and 0.2 °C at 100 cms. depth.

The mean daily pan evaporation was 0.69 mm lower than the corresponding value of March 1966. Total actual duration of bright sunshine was 20.4 hours higher than the corresponding value of last March.

**Table C1.—AIR TEMPERATURE AT 2 METRES ABOVE GROUND
MARCH—1967**

STATION	Air Temperature (°C)					Mean Duration in hours of daily air temperature above the following values										
	Mean Max.	Mean Min.	Mean of the day	Night time mean	Day time mean	-5°C	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C
El Ksar	18.6	9.1	14.0	12.0	16.0	24.0	24.0	24.0	21.2	9.2	0.9	0.0	0.0	0.0	0.0	0.0
Tahrir	20.9	7.9	14.1	11.1	17.1	24.0	24.0	23.8	18.6	9.4	2.0	0.0	0.0	0.0	0.0	0.
Bahtim	20.8	6.1	13.4	9.4	17.1	24.0	24.0	22.7	16.2	9.4	2.3	0.2	0.0	0.0	0.0	0.
Giza	21.0	8.0	14.6	11.9	16.2	24.0	24.0	23.9	19.5	10.6	2.6	0.0	0.0	0.0	0.0	0.
Kharga	25.0	8.6	17.4	14.1	20.7	24.0	24.0	24.0	22.1	15.0	8.2	1.5	0.0	0.0	0.0	0.0

**Table C 2.—ABSOLUTE VALUES OF AIR TEMPERATURE AT 2 METRES ABOVE GROUND,
ABSOLUTE MINIMUM AIR TEMPERATURE AT 5 cms ABOVE GROUND OVER
DIFFERENT FIELDS.**

MARCH—1967

STATION	Max. Temp. at 1½ metres (°C)				Min. Temp. at 1½ metres (°C)				Min. Temp. at 5 cms. above (°C)			
	Highest		Lowest		Highest		Lowest		Dry soil		Grass	
	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date
El Ksar	23.0	20	15.7	8	13.2	10	5.1	12	1.6	12	—	—
Tahrir	25.4	14	16.7	24	13.3	20	4.1	7	1.4	8	—	—
Bahtim	25.8	15	16.6	26	10.6	22	1.5	8	-1.3	8.9	—	—
Giza	26.0	15	16.9	26	12.6	21	4.5	7	-0.3	7	-0.4	7
Kharga	29.0	31	21.6	7	12.2	21	4.6	6	2.6	10	—	—

Table C 3.—(SOLAR+SKY) RADIATION, DURATION OF BRIGHT SUNSHINE, RELATIVE HUMIDITY, VAPOUR PRESSURE AT 2 METRES ABOVE GROUND, EVAPORATION & RAINFALL

MARCH—1967

STATION	(Solar+Sky) Radiation gm. cal/cm ²	Duration of Bright Sunshine (hours)			Relative Humidity %			Vapour pressure (mms)					Evaporation(mms)	Rainfall (mms)					
		Total monthly	Actual monthly	Total Possible monthly	Mean of day	1200 U.T.	Lowest	Date	Mean of day	1200 U.T.	Highest	Date	Lowest	Date	Piche	Pan class A	Total Amount Monthly	Max. Fall in one day	Date
El Ksar	384.4	239.6	370.9	64	67	55	20	20	7.9	8.2	11.7	13	4.2	19.20	9.7	7.07	8.1	3.1	23
Tahrir	499.6	273.8	371.1	74	64	44	23	20	7.5	7.4	11.1	13	4.1	22	7.3	6.38	4.0	3.8	24
Bahtim	—	279.4	371.0	75	63	40	25	20	6.7	7.0	9.9	4.14	4.2	22	7.9	6.52	0.3	0.2	23
Giza	492.5	282.5	371.0	76	59	38	25	16	7.0	6.5	10.5	4	3.7	21	7.7	6.45	1.3	0.8	25
Kharga	492	338.6	371.9	91	33	20	11	23	4.6	4.5	8.3	2	2.4	23	13.8	81.11	0.0	0.0	30

**Table C 4.—EXTREME SOIL TEMPERATURE AT DIFFERENT DEPTHS (cms)
IN DIFFERENT FIELDS**

MARCH — 1967

STATION	Highest (H) Lowest (L)	Extreme soil temperature (°C) in dry field at different depths (cms.)								Extreme soil temperature (°C) in grass field at different depths (cms.)							
		2	5	10	20	50	100	200	300	2	5	10	20	50	100	200	300
El Kaqr . . .	H	30.3	27.8	23.7	19.2	17.7	18.0	19.2	—	—	—	—	—	—	—	—	—
	L	9.4	10.0	10.8	13.8	16.0	17.2	18.7	—	—	—	—	—	—	—	—	—
Tahrir	H	38.2	32.2	27.2	23.2	19.2	19.1	19.8	20.7	—	—	—	—	—	—	—	—
	L	11.0	10.8	11.8	13.8	16.3	17.9	19.2	20.4	—	—	—	—	—	—	—	—
Bahtim	H	42.2	28.9	24.3	19.7	18.6	19.6	—	—	—	—	—	—	—	—	—	—
	L	9.5	10.2	12.6	15.6	16.1	16.9	—	—	—	—	—	—	—	—	—	—
Giza	H	—	29.3	24.1	21.6	20.4	20.8	22.1	23.0	—	22.2	19.4	17.0	16.0	—	—	—
	L	—	11.1	14.4	17.2	19.2	20.0	21.8	23.3	—	9.0	10.6	12.6	14.6	—	—	—
Kharga	H	40.0	35.0	28.0	24.2	23.4	23.6	25.3	26.8	—	—	—	—	—	—	—	—
	L	6.6	10.0	14.5	18.8	21.4	22.5	24.7	26.2	—	—	—	—	—	—	—	—

Table C 5.—SURFACE WIND

MARCH — 1967

STATION	Wind Speed m/sec at 1½ metres			Days with surface wind speed at 10 metres								Max. Gust (knots) at 10 metres	
	Mean of the day	Night time mean	Day time mean	≥ 10 knots	≥ 15 knots	≥ 20 knots	≥ 25 knots	≥ 30 knots	≥ 35 knots	≥ 40 knots		value	Date
El Kaqr	5.2	4.0	6.4	—	—	—	—	—	—	—	—	—	—
Tahrir	3.1	2.1	4.1	27	16	11	3	3	1	1	50	19	—
Bahtim	2.9	2.1	3.8	—	—	—	—	—	—	—	—	—	—
Giza	2.5	1.7	3.4	31	18	9	9	—	—	—	—	37	9
Kharga	3.3	2.1	4.5	31	24	9	—	—	—	—	—	32	25

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UNITED ARAB REPUBLIC

MONTHLY WEATHER REPORT

VOLUME 10

NUMBER 4

APRIL, 1967

U.D.C. 551. 506,1 (62)

METEOROLOGICAL DEPARTMENT
CAIRO

PUBLICATIONS OF THE METEOROLOGICAL DEPARTMENT OF THE UNITED ARAB REPUBLIC—CAIRO

In fulfilment of its duties, the U.A.R. Meteorological Department issues several reports and publications on weather, climate and agrometeorology. The principal publications are described on this page.

Orders for publications should be addressed to :
“The Director General, Meteorological Department, Kubri-el-Qubbeh — CAIRO”.

THE DAILY WEATHER REPORT

This report is issued daily by the Meteorological Department since the year 1901. It includes surface and upper air observations carried out by the relevant networks of the Republic at the principal hours of observations.

As from January 1968 this report was revised to include a condensed representative selection of surface and upper air observations besides the 1200 U.T. surface & 500 mb charts.

THE MONTHLY WEATHER REPORT

First issued in 1909, the Monthly Weather Report served to give a brief summary of the weather conditions that prevailed over Egypt during the month, with a table showing the mean values for few meteorological elements and their deviations from the normal values. From 1954 to 1957 this report was in a rapid state of development and extension resulting into a voluminous report on January 1958 giving surface, upper air, and agro-meteorological data for U.A.R.

As from January 1964, the Monthly Weather Report was pressed to give climatological data for a representative selection of synoptic stations.

THE AGRO-METEOROLOGICAL ABRIDGED MONTHLY REPORT

Gives a review of weather experienced in the agro-meteorological stations of the U.A.R. as well as monthly values of certain elements.

THE ANNUAL REPORT

This report gives annual values and statistics for the various meteorological elements, together with a summary of the weather conditions that prevailed during all months of the year.

CLIMATOLOGICAL NORMALS FOR EGYPT

A voluminous edition was issued in march 1968 which brings normals and mean values up till 1960.

METEOROLOGICAL RESEARCH BULLETIN

First issued in January 1969 on a bi-annual basis. It includes research works carried out by members of staff of “The Meteorological Institute for Research and Training” and the Operational Divisions of Meteorological Department.

TECHNICAL NOTES

As from October 1970, the Meteorological Department started to issue a new series of publications in the form of Technical Notes (non periodical) on subjects related to studies and applications of meteorology in different fields for the benefit of personnel working in these fields.

The first Technical Note I was issued in October 1970 on : Sandstorms & Duststorms in the U.A.R.



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METEOROLOGICAL DEPARTMENT
CAIRO

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Note : For explanatory notes on tables please refer to volume 10 number 1 (January 1967).

GENERAL SUMMARY OF WEATHER CONDITIONS

APRIL 1967

Changeable intervened with several khamsin heat waves mostly of short durations, followed by mild periods light rainy in north of the Republic.

GENERAL DESCRIPTION OF WEATHER

This month started with a prevailing heat wave which was followed by a prolonged mild period which continued most of the first decade. The second and third decades were characterized by a series of five khamsin disturbances mostly of short duration, separated by short mild periods. The break down of these heat waves was associated with rising sand in few scattered localities. Early morning mist developed during several days over few localities in Delta & Cairo areas.

PRESSURE DISTRIBUTION

The most important features of pressure distribution over the surface maps were :

- The Atlantic anticyclone and its south east extension over North Africa.
- The Siberian anticyclone.
- Deep low pressure systems passing through North Urasia.
- Secondary depressions passing through Mediterranean & adjacent areas.
- Six khamsin secondaries which originated over North Algiers on the 1st, 8th, 11th, 16th, 20th & 27th respectively.

Two of these khamsin disturbances (the third and fifth) moved north-eastwards forming complex low pressure system over Italy,

Greece & Central Mediterranean which moved eastwards and their southern troughs traversed U.A.R. round the 15th & 23rd respectively. The other khamsin secondaries moved eastwards ; the first three of which traversed U.A.R. on the 2nd, 12th & 19th respectively and the last one approached the western coast of U.A.R. by the end of the month.

The barometric pressure in U.A.R. was affected by the transits of the above mentioned khamsin secondaries and also the transit of the trough of a Mediterranean secondary on the 6th. It showed corresponding oscillations with their minima round the 2nd, 6th, 12th, 15th, 19th & 23rd respectively.

It is noteworthy that the barometric pressure in U.A.R. was above normal round the periods (3rd—10th) & (25th—30th) when high pressure established over U.A.R & East Mediterranean; otherwise it remained generally below normal.

The outstanding features of pressure distribution over the 700 & 500 m.b. upper charts were :

- Deep upper low pressure systems over North Urasia & North Atlantic.
- Secondary upper troughs (or lows) passing through middle latitudes between 30° & 45° N and traversing U.A.R. round the 4th, 7th, 16th, 20th & 24th respectively.
- Upper subtropical high pressure belt south latitude 30° N

SURFACE WIND

— The prevailing winds during this month were generally light to moderate, and blew mostly from the NW direction and with a less frequency from the NE direction. They generally changed to SE ly & SW ly in advance of the transitory khamsin disturbances. Fresh and strong winds were experienced during several days in scattered localities mainly in the Red Sea, Mediterranean coast & western Desert districts.

Gales were reported at Port Said, Ghaza and Abu Sueir on the 25th and at Hurghada on the 4th.

TEMPERATURE

Maximum temperature showed alternative variability during this month above and below normal. Its values were moderately round normal in general and ranged most days of the month between 20°C & 30°C in the northern parts, between 24°C & 35°C in the central parts and between 32°C & 39°C in the southern parts.

The absolute maximum temperature was 42.6°C reported at Dakhla on the 15th.

Minimum temperature oscillations were similar to maximum temperature oscillations, but to a less extent. Its values ranged generally between 8°C & 17°C in the northern & central parts and between 12°C & 19°C in the southern parts

The absolute minimum temperature was 1.5°C reported at Balteam on the 8th.

PRECIPITATION

During this month, rain was light and fell on few days (not more than 3 days) over scattered parts in north of the Republic till Cairo.

The monthly rainfall was subnormal in general.

The highest daily rainfall was 4.0 mms. at Fuka on the 19th.

The highest monthly rainfall was 5.1 mms as Sallum.

M. F. TAHIA

Under Secretary of State
Director General
Meteorological Department

Cairo, April 1971

Table A 1. — MONTHLY VALUES OF THE ATMOSPHERIC PRESSURE, AIR TEMPERATURE,
RELATIVE HUMIDITY, BRIGHT SUNSHINE DURATION & PICHE EVAPORATION.

APRIL — 1967

STATION	Atmospheric Pressure (mbs) M.S.L.		Air Temperature °C								Relative Humidity %		Bright Sunshine Duration (Hours)			Piche Evaporation (mm) Mean	
	Mean	D.F. Normal or Average	Maximum		Minimum		$\frac{A+B}{z}$	Dry Bulb		Wet Bulb		Mean	D.F. Normal or Average	Total Actual	Total Possible	%	
			(A) Mean	D.F. Normal or Average	(B) Mean	D.F. Normal or Average		Mean	D.F. Normal or Average	Mean	D.F. Normal or Average						
Sallum	1014.0	+ 0.6	24.7	+ 1.0	13.4	- 0.1	19.0	18.3	- 0.6	13.2	- 0.6	53	+ 1.3	—	—	12.6	
Mersa Matruh (A)	1014.4	0.0	23.9	+ 1.2	11.4	- 0.6	17.6	17.3	0.0	13.7	+ 0.3	65	+ 1.1	—	—	9.2	
Alexandria . . (A)	1014.3	+ 0.2	24.6	+ 0.8	12.3	- 1.1	18.4	17.9	- 0.3	14.2	- 0.4	64	+ 1.2	299.9	388.2	77	
Port Said . . (A)	1013.6	- 0.1	21.6	- 0.9	15.9	- 0.9	16.8	18.4	- 0.4	15.4	- 0.1	71	+ 1.1	276.7	388.2	71	
El Arish	1013.9	+ 1.0	24.0	+ 0.4	13.5	+ 0.2	18.8	18.2	- 0.4	14.8	- 1.8	67	0.0	—	—	4.7	
Ghazza	1013.6	+ 0.8	22.0	0.0	13.	- 0.5	17.6	17.6	- 0.6	14.7	- 0.5	71	0.0	252.4	388.8	65	
Tanta	1013.6	+ 0.9	27.0	- 0.8	11.4	+ 0.6	19.2	18.5	- 0.2	13.4	- 0.5	53	- 1	308.4	387.8	80	
Cairo (A)	1013.5	+ 0.1	28.0	- 0.2	13.8	- 0.2	20.9	20.8	- 0.1	13.7	- 0.8	41	- 5	—	—	19.2	
Fayoum	1013.4	+ 0.7	29.8	+ 0.1	12.3	- 0.9	21.0	20.9	- 0.4	14.5	+ 0.4	48	+ 6	—	—	7.9	
Minya (A)	1012.9	+ 0.1	31.0	+ 0.4	11.5	- 0.4	21.2	21.2	0.0	13.4	- 0.5	36	+ 5	296.6	385.1	77	
Assyout (A)	1012.5	+ 0.4	31.4	- 0.4	15.0	+ 0.1	23.2	23.0	- 0.8	13.2	- 0.1	26	+ 2	—	—	18.6	
Luxor (A)	1011.4	+ 0.9	34.2	- 0.4	15.6	0.0	24.9	25.3	- 0.5	14.2	- 0.9	22	- 4	—	—	13.5	
Aswan (A)	1011.1	+ 0.4	34.5	- 0.6	16.8	- 0.9	25.6	26.1	- 0.7	12.8	- 0.5	11	- 1	—	—	19.1	
Siwa	1013.7	+ 0.3	30.3	- 0.5	13.8	+ 1.6	22.1	22.2	+ 0.6	13.0	- 0.1	28	- 4	—	—	15.6	
Bahariya	1013.6	+ 1.2	30.8	+ 0.8	14.3	+ 1.5	22.6	22.8	+ 0.4	12.9	- 0.4	25	- 4	—	—	11.9	
Farafra	1014.0	+ 0.1	31.3	+ 0.1	12.6	- 0.7	22.0	21.8	- 0.9	12.5	- 0.1	26	+ 3	—	—	16.6	
Dakhla	1013.6	+ 2.4	33.6	+ 0.8	12.6	- 1.4	23.1	23.4	- 0.5	12.4	- 0.2	19	+ 1	—	—	16.3	
Kharga	1012.2	+ 1.1	33.6	+ 0.3	16.2	+ 0.8	25.0	25.1	+ 0.3	12.4	- 1.2	19	- 4	319.7	381.6	84	
Tor	1012.3	+ 1.5	27.2	- 0.7	16.8	+ 0.4	22.0	22.0	- 0.8	15.7	- 1.0	48	- 3	—	—	12.0	
Hurgada	1011.5	+ 0.9	27.1	+ 0.8	15.6	- 0.6	21.4	21.8	- 1.5	14.6	- 1.1	41	- 6	—	—	16.3	
Quseir	1012.4	+ 1.8	26.5	- 0.7	18.3	- 1.2	22.4	22.6	- 0.9	15.7	- 1.0	44	- 2	—	—	15.7	

Table A 2.— MAXIMUM AND MINIMUM AIR TEMPERATURES

APRIL — 1967

Station	Maximum Temperature °C										Grass Min. Temp.	Minimum Temperature °C										
	Highest	Date	Lowest	Date	No. of Days with Max-Temp.							Mean	D. From Normal	Highest	Date	Lowest	Date	No. of Days with Min. Temp.				
					> 25	> 30	> 35	> 40	> 45	< 10												
					—	—	—	—	—	—	< 5							< 0				
Sallum	37.0	14	18.5	9	10	5	1	0	0	12.9	—	18.2	14	8.5	5	1	0	0	0	0	0	
Mersa Matruh . . . (A)	34.8	14.19	18.1	4	10	4	0	0	0	15.8	30	6.3	8	10	0	0	0	0	0	0	0	
Alexandria (A)	30.6	14	18.9	4	14	12	0	0	0	16.3	20	7.8	6	5	0	0	0	0	0	0	0	
Port Said (A)	28.9	15	18.5	4	2	0	0	0	0	14.1	23	11.9	5	0	0	0	0	0	0	0	0	
El Arish	34.0	15	19.2	5	9	4	0	0	0	11.7	20	9.8	6	1	0	0	0	0	0	0	0	
Ghazza	30.8	3	17.7	4	6	2	0	0	0	19.3	20	10.0	1,6	0	0	0	0	0	0	0	0	
Tanta	35.4	15	18.8	4	21	8	1	0	0	—	—	16.0	23	7.4	1	8	0	0	0	0	0	
Cairo (A)	36.4	15	20.5	5	24	10	1	0	0	—	—	18.4	18.23	9.0	1	10	0	0	0	0	0	
Fayoum	36.9	15	22.2	4	27	15	1	0	0	10.6	—	17.8	23	7.0	6	6	0	0	0	0	0	
Minya (A)	39.2	15	23.2	4	28	18	5	0	0	9.7	—	17.2	24	6.6	5	7	0	0	0	0	0	
Asseyout (A)	40.2	15	23.2	5	28	19	4	1	0	10.2	—	23.2	23	9.7	9	2	0	0	0	0	0	
Luxor (A)	40.8	23	26.8	5	30	26	12	1	0	10.1	—	24.5	24	10.2	1	0	0	0	0	0	0	
Aswan (A)	40.8	23	27.8	6	30	27	13	1	0	—	—	24.5	24	11.8	9	0	0	0	0	0	0	
Siwa	38.4	19	21.0	4	26	16	6	0	0	12.1	—	20.0	23	5.9	5	7	0	0	0	0	0	
Bahariya	39.1	15	21.8	4	28	16	4	0	0	12.7	—	23.9	23	6.5	5	3	0	0	0	0	0	
Farafra	40.3	19	22.1	4	29	19	6	1	0	12.1	—	21.3	23	2.9	6	9	2	0	0	0	0	
Dakhla	42.6	15	24.7	4	29	23	12	2	0	—	—	20.2	23	4.0	6	9	2	0	0	0	0	
Kharga	41.6	23	25.8	4	30	24	11	1	0	13.7	—	23.0	20	9.8	7	1	0	0	0	0	0	
Tor	33.5	23	22.0	8	22	5	0	0	0	—	—	22.5	20	10.3	1	0	0	0	0	0	0	
Hurghada	31.2	20	22.1	5	25	2	0	0	0	16.1	—	21.8	24	10.6	6	0	0	0	0	0	0	
Quseir	36.8	20	21.7	5	23	3	1	0	0	16.3	—	21.6	24	14.5	3	0	0	0	0	0	0	

Table A 3.—SKY COVER AND RAINFALL

APRIL — 1967

Station	Mean Sky Cover Oct.					Rainfall mms.										
	00 U.T.	06 U.T.	12 U.T.	18 U.T.	Daily Mean	Total Amount	D. From Normal	Max. Fall in one day		Number of Days with Amount of Rain						
								Amount	Date	<0.1	≥0.1	≥1.0	≥5.0	>10	≥25	≥50
Sallum (A)	3.6	2.6	3.5	3.1	3.2	5.1	+ 4.0	3.2	22	0	3	2	0	0	0	0
Mersa Matruh (A)	2.0	3.3	3.1	2.2	2.8	1.9	- 0.6	1.4	18	5	3	1	0	0	0	0
Alexandria (A)	2.7	4.4	3.0	1.7	2.4	1.5	- 1.6	1.0	4	1	3	1	0	0	0	0
Port Said (A)	0.9	2.7	2.8	1.4	1.8	0.3	- 2.8	0.3	4	0	1	0	0	0	0	0
El Arish	3.0	3.5	3.4	3.1	3.2	0.1	- 6.5	0.1	19	0	1	0	0	0	0	0
Ghazza	2.7	3.3	3.3	2.2	2.8	tr,	- 8.5	tr.	4	1	0	0	0	0	0	0
Tanta	0.5	2.5	2.8	0.5	1.6	0.4	- 1.7	0.4	30	0	1	0	0	0	0	0
Cairo (A)	1.4	3.3	2.7	1.8	2.4	1.0	+ 0.2	0.8	3	0	2	0	0	0	0	0
Fayoum	—	2.8	2.7	2.5	—	tr.	- 0.7	tr.	3	1	0	0	0	0	0	0
Minya (A)	1.4	2.0	2.6	2.0	2.0	tr.	- 0.4	tr.	24	1	0	0	0	0	0	0
Assyout (A)	1.3	1.5	2.0	1.8	1.6	tr.	0.0	tr.	19, 24	2	0	0	0	0	0	0
Luxor (A)	1.1	1.7	1.7	2.1	1.8	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Aswan (A)	0.5	1.1	1.2	1.4	1.1	0.0	- tr.	0.0	—	0	0	0	0	0	0	0
Siwa	2.2	3.0	3.6	2.9	2.9	0.4	- 0.5	0.4	26	0	1	0	0	0	0	0
Bahariya	1.7	2.3	2.6	2.0	2.2	tr.	- 0.5	tr.	24	1	0	0	0	0	0	0
Farafra	—	1.6	2.7	2.2	—	tr.	- 0.1	tr.	27	1	0	0	0	0	0	0
Dakhla	0.5	0.9	1.4	0.8	0.9	0.0	- tr.	0.0	—	0	0	0	0	0	0	0
Kharga	1.0	1.2	1.4	1.1	1.2	0.0	- tr.	0.0	—	0	0	0	0	0	0	0
Tor	1.4	1.6	2.3	1.9	1.8	0.0	- 0.3	0.0	—	0	0	0	0	0	0	0
Hurghada	1.6	1.7	2.2	2.1	1.8	tr.	0.0	tr.	24	1	0	0	0	0	0	0
Quseir	1.0	1.3	2.4	1.7	1.4	0.0	- 0.1	0.0	—	0	0	0	0	0	0	0

Table A 4. — DAYS OF OCCURRENCE OF MISCELLANEOUS WEATHER PHENOMENA.

APRIL — 1967

Station	Precipitation				Frost	Thunderstorm	Mist Vis ≥ 1000 metres	Fog Vis < 1000 Metres	Haze Vis ≥ 1000 Metres	Thick Haze Vis < 1000 Metres	Dust or Sandrising Vis ≥ 1000 Metres	Dust or Sandstorm Vis < 1000 Metres	Gale	Clear Sky	Cloudy Sky	
	Rain	Snow	Ice. Pellets	Hail												
Sallum	3	0	0	0	0	0	0	0	0	0	4	1	0	0	9	2
Mersa Matruh (A)	3	0	0	0	0	0	1	2	0	0	3	0	0	0	12	2
Alexandria (A)	2	0	0	0	0	0	12	4	0	0	1	0	0	0	8	0
Port Said (A)	1	0	0	0	0	0	1	0	0	0	1	0	0	1	18	0
Al Arish (A)	1	0	0	0	0	0	10	0	2	0	0	0	0	0	10	0
Ghazza	0	0	0	0	0	0	1	1	0	0	1	0	0	1	9	0
Tanta	1	0	0	0	0	0	1	0	0	0	0	0	0	0	19	0
Cairo (A)	2	0	0	0	0	0	4	1	6	0	5	1	0	0	11	0
Fayoum	0	0	0	0	0	0	0	0	0	0	0	1	0	0	—	—
Minya (A)	0	0	0	0	0	0	0	0	0	0	5	2	0	0	18	0
Asyout (A)	0	0	0	0	0	0	0	0	4	0	4	0	0	0	21	0
Luxor (A)	0	0	0	0	0	0	0	0	7	0	9	0	0	0	19	1
Aswan (A)	0	0	0	0	0	0	0	0	4	0	4	1	0	0	24	0
Siwa	1	0	0	0	0	0	0	0	12	0	0	0	0	0	13	3
Bahariya	0	0	0	0	0	0	0	0	3	0	0	0	0	0	16	1
Farafra	0	0	0	0	0	0	2	0	5	1	0	0	0	0	—	—
Dakhla	0	0	0	0	0	0	1	0	7	0	0	0	0	0	27	0
Kharga	0	0	0	0	0	0	0	0	5	0	0	0	0	0	—	0
Tor	0	0	0	0	0	0	7	0	1	0	11	0	0	0	19	0
Hurghada	0	0	0	0	0	0	0	0	0	0	2	0	0	1	21	0
Quseir	0	0	0	0	0	0	0	0	4	0	3	0	0	0	21	1

Table A 5.—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES
APRIL — 1967

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated												All directions
					345 /	015 014	045 044	075 074	105 104	135 134	165 164	195 194	225 224	255 254	285 284	315 314	
					/	/	/	/	/	/	/	/	/	/	/	/	
Sallum	16	39	0	1-10	22	35	61	107	68	19	2	3	5	39	43	41	445
				11-27	15	15	7	0	0	0	2	23	20	34	35	69	220
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	37	50	68	107	68	19	4	26	25	73	78	110	665
Mersa Matruh . (A)	43	0	0	1-10	38	28	33	54	55	48	30	22	9	43	36	23	419
				11-27	11	3	16	23	13	9	21	18	9	15	48	72	258
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	49	31	49	77	68	57	51	40	18	58	84	95	677
Alexandria . . . (A)	2	0	0	1-10	61	86	37	42	92	32	9	12	12	12	42	48	485
				11-27	19	34	23	2	5	2	3	3	5	25	83	28	232
				28-47	0	1	0	0	0	0	0	0	0	0	0	0	1
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	80	121	60	44	97	34	12	15	17	37	125	76	718
Port Said . . . (A)	0	0	0	1-10	110	52	46	31	23	10	6	7	29	15	20	39	388
				11-27	66	31	30	25	7	9	6	6	6	37	45	33	32
				28-47	0	0	0	0	0	0	0	0	2	2	0	0	4
				≥48	0	0	0	0	0	0	0	0	0	0	1	0	1
				All speeds	176	83	76	56	30	19	12	13	68	62	54	71	720
Tanta	32	0	3	1-10	68	119	37	34	67	51	26	17	57	62	52	40	630
				11-27	7	14	5	0	0	0	0	0	1	6	12	10	55
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	75	133	42	34	67	51	26	17	58	68	64	50	685
Cairo (A)	22	5	0	1-10	38	76	91	38	17	13	11	18	17	24	55	41	439
				11-27	10	57	38	8	10	11	22	13	12	19	38	15	253
				28-47	0	0	0	0	0	0	1	0	0	0	0	0	1
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	48	133	129	46	27	24	34	31	29	43	93	56	693
Fayoum	29	2	1	1-10	125	224	29	15	8	29	31	35	38	32	31	35	632
				11-27	3	42	0	0	0	0	0	0	1	7	2	1	56
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	128	266	29	15	8	29	31	35	39	39	33	36	688
Minya (A)	29	77	2	1-10	113	23	4	1	8	50	9	6	7	7	18	161	407
				11-27	81	2	0	0	1	12	2	1	0	2	18	86	205
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	194	25	4	1	9	62	11	7	7	9	36	247	612

Table A 5 (contd.)—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES

APRIL — 1967

Station	calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated												
					345 /	015 014	045 044	/	075 104	105 134	135 164	165 194	195 224	225 254	255 284	285 314	315 344
Asyout (A)	18	2	3	1-10	20	15	9	22	26	19	13	6	47	216	74	108	575
				11-27	6	4	0	1	1	2	6	2	1	20	28	51	122
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	26	19	9	23	27	21	19	8	48	236	102	159	697
Luxor (A)	0	17	1	1-10	77	83	45	30	28	35	82	27	31	58	65	120	681
				11-27	6	3	0	0	0	0	0	1	0	0	2	9	21
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	83	86	45	30	28	35	82	28	31	58	67	129	702
Aswan (A)	9	5	0	1-10	165	198	19	7	2	2	13	5	5	12	9	55	492
				11-27	133	67	1	0	0	0	0	0	0	0	2	11	214
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	298	265	20	7	2	2	13	5	5	12	11	66	706
Siwa	9	9	0	1-10	14	20	56	155	98	40	18	23	22	76	45	23	590
				11-27	8	5	1	7	4	10	18	2	7	25	16	9	112
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	22	25	57	162	102	50	36	25	29	101	61	32	702
Dakhla	7	7	1	1-10	43	51	57	46	38	34	53	51	30	24	65	140	632
				11-27	16	14	5	1	0	0	0	1	0	1	0	35	73
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	59	65	62	47	38	34	53	52	30	25	65	175	705
Kharga	14	5	2	1-10	123	44	20	4	6	23	20	14	17	20	17	106	414
				11-27	160	36	1	0	0	0	2	2	3	3	5	73	285
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	283	80	21	4	6	23	22	16	20	23	22	179	699
Hurghada	27	0	3	1-10	12	22	15	3	11	23	21	1	2	3	30	64	207
				11-27	151	57	2	0	4	23	5	0	0	0	42	170	454
				28-47	9	0	0	0	0	0	0	0	0	0	0	20	29
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	172	79	17	3	15	46	26	1	2	3	72	254	690
Quseir	7	0	0	1-10	69	42	17	8	10	32	32	12	9	24	83	92	430
				11-27	166	12	0	0	1	9	2	0	0	0	4	89	283
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	235	54	17	8	11	41	34	12	9	24	87	181	713

Table B 1.—UPPER AIR CLIMATOLOGICAL DATA
ABRIL — 1967

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mersa Matruh 0000 U.T.	Surface . . .	29	1012m.b.	1023m.b.	1003m.b.	29	14.1	19.4	9.4	29	9.8
	1000 . . .	29	132	211	53	29	15.1	20.6	11.4	29	9.5
	850 . . .	29	1505	1573	1423	29	11.1	19.6	1.4	24	-1.3
	700 . . .	29	3094	3160	3017	29	1.6	8.0	-4.0	14	-6.9
	600 . . .	29	4316	4389	4227	29	-6.7	-2.2	-12.8	11	-13.4
	500 . . .	26	5719	5797	5616	26	-16.7	-12.8	-22.9	9	-21.1
	400 . . .	26	7358	7430	7216	26	-28.4	-22.8	-35.5	6	-29.6
	300 . . .	26	9358	9461	9185	26	-43.4	-36.2	-49.9	2	-41.6
	200 . . .	21	11983	12107	11795	21	-58.1	-50.8	-63.4	—	—
	150 . . .	15	13778	13937	13588	15	-60.6	-55.9	-68.5	—	—
	100 . . .	11	16261	16342	16115	11	-64.8	-60.8	-71.2	—	—
	70 . . .	9	18422	18470	18330	9	-66.1	-60.8	-71.3	—	—
	60 . . .	7	19342	19399	19293	7	-65.1	-60.8	-73.0	—	—
	50 . . .	4	20512	20523	20461	4	-60.1	-57.8	-62.8	—	—
	40 . . .	3	21901	21928	21857	3	-56.9	-56.4	-57.8	—	—
	30 . . .	3	23729	23753	23701	3	-45.9	-53.0	-59.8	—	—
	20 . . .	—	—	—	—	—	—	—	—	—	—
	10 . . .	—	—	—	—	—	—	—	—	—	—
Helwan 0000 U.T.	Surface . . .	28	998 * m.b.	1003m.b.	988m.b.	28	16.2	22.4	10.8	28	6.0
	1000 . . .	28	118	173	30	8	13.2	16.9	10.9	8	6.8
	850 . . .	28	1495	1551	1430	28	12.3	19.5	3.4	23	5.2
	700 . . .	28	3095	3146	3040	28	3.0	7.0	-2.9	11	-10.3
	600 . . .	26	4329	4388	4260	26	-4.9	-2.6	-9.7	9	-15.4
	500 . . .	26	5734	5798	5663	26	-14.7	-10.4	-18.3	7	-24.1
	400 . . .	25	7383	7448	7305	25	-27.0	-21.8	-31.5	6	-32.0
	300 . . .	25	9393	9477	9294	25	-42.2	-37.3	-46.8	3	-41.7
	200 . . .	23	12024	12139	11914	23	-56.9	-51.2	-63.3	—	—
	150 . . .	22	13801	13974	13737	22	-62.1	-57.6	-67.2	—	—
	100 . . .	20	16325	16417	16245	20	-66.1	-61.8	-77.0	—	—
	70 . . .	13	18502	18600	18420	13	-64.7	-60.2	-69.7	—	—
	60 . . .	11	19445	19510	19361	11	-61.9	-58.6	-67.6	—	—
	50 . . .	11	20579	20641	20492	11	-59.7	-56.8	-63.7	—	—
	40 . . .	10	21979	22030	21890	10	-56.5	-54.2	-60.8	—	—
	30 . . .	9	23809	23888	23700	9	-54.7	-51.5	-57.1	—	—
	20 . . .	7	26458	26530	26309	7	-49.7	-46.7	-53.5	—	—
	10 . . .	1	31030	—	—	1	-39.1	—	—	—	—
Aswan 0000 U.T.	Surface . . .	29	988m.b.	992m.b.	984m.b.	29	22.9	29.0	15.0	29	-2.2
	1000 . . .	29	90	135	53	—	—	—	—	—	—
	850 . . .	29	1493	1525	1478	29	18.8	25.4	11.8	17	-1.7
	700 . . .	29	3126	3166	3094	29	7.8	12.7	3.6	19	-7.1
	600 . . .	29	4377	4431	4334	29	-1.7	2.4	-4.1	16	-10.5
	500 . . .	29	5809	5879	5759	29	-10.1	-5.9	-14.6	16	-19.8
	400 . . .	29	7478	7580	7418	29	-22.5	-17.0	-26.5	15	-29.8
	300 . . .	28	9537	9650	9432	28	-37.2	-31.0	-41.2	2	-40.3
	200 . . .	28	12224	12395	12109	28	-55.0	-51.2	-61.1	—	—
	150 . . .	28	14028	14196	13893	28	-63.6	-56.2	-71.3	—	—
	100 . . .	26	16509	16573	16311	26	-73.4	-64.2	-80.3	—	—
	70 . . .	24	18561	18760	18430	24	-70.2	-63.8	-75.6	—	—
	60 . . .	21	19477	19606	19385	21	-64.8	-59.0	-69.1	—	—
	50 . . .	20	20606	20734	20478	20	-60.5	-56.9	-64.4	—	—
	40 . . .	19	22004	22132	21871	19	-56.9	-52.3	-60.0	—	—
	30 . . .	19	23852	23972	23708	19	-52.6	-46.8	-57.2	—	—
	20 . . .	13	26489	26597	26373	13	-47.1	-29.9	-52.3	—	—
	10 . . .	—	—	—	—	—	—	—	—	—	—

N = The number of cases the element has been observed during the month.

* The atmospheric pressure corrected to the elevation of the radiosonde station.

Table B 1 (contd.).—UPPER AIR CLIMATOLOGICAL DATA
APRIL—1967

Station	Pressure Surface Millibar	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mersa Matruh (A) 1200 U.T.	Surface . . .	24	1012m.b.	1022m.b.	* 999m.b.	24	22.1	32.9	17.4	24	12.4
	1000 . . .	24	130	206	21	23	20.7	32.1	15.1	23	10.2
	850 . . .	24	1517	1571	1435	24	12.3	19.8	2.0	15	— 2.1
	700 . . .	24	3114	3187	3053	24	3.4	8.5	— 4.0	11	— 7.4
	600 . . .	24	4342	4437	4264	24	— 5.3	— 1.9	— 10.0	8	— 10.8
	500 . . .	23	5749	5861	5655	23	— 15.2	— 11.0	— 20.3	9	— 20.0
	400 . . .	23	7396	7529	7269	23	— 28.0	— 21.9	— 34.0	5	— 33.4
	300 . . .	23	9403	9577	9222	23	— 42.3	— 37.0	— 48.0	2	— 41.4
	200 . . .	21	12039	12162	11858	21	— 56.6	— 51.2	— 61.9	—	—
	150 . . .	17	13857	13972	13715	17	— 58.5	— 53.8	— 63.8	—	—
	100 . . .	10	16370	16491	16272	10	— 62.2	— 53.8	— 65.5	—	—
	70 . . .	5	18600	18630	18590	5	— 60.4	— 55.0	— 66.4	—	—
	60 . . .	4	19570	19604	19527	4	— 58.6	— 55.1	— 62.8	—	—
	50 . . .	4	20721	20765	20662	4	— 56.8	— 55.2	— 58.5	—	—
	40 . . .	3	22136	22204	22083	3	— 51.0	— 46.4	— 53.4	—	—
	30 . . .	—	—	—	—	—	—	—	—	—	—
	20 . . .	—	—	—	—	—	—	—	—	—	—
	10 . . .	—	—	—	—	—	—	—	—	—	—
Helwan 1200 U.T.	Surface . . .	28	* 996m.b.	* 1003m.b.	* 988m.b.	28	26.9	33.2	19.4	28	3.2
	1000 . . .	28	107	166	35	8	24.6	33.2	19.1	8	1.9
	850 . . .	28	1507	1541	1462	28	13.7	20.5	5.9	25	— 2.0
	700 . . .	28	3114	3150	3066	28	4.4	8.4	— 0.3	9	— 7.6
	600 . . .	28	4351	4413	4294	28	— 4.5	0.9	— 7.0	10	— 13.3
	500 . . .	28	5758	5833	5692	28	— 13.3	— 8.7	— 17.6	7	— 22.6
	400 . . .	28	7425	7522	7333	28	— 25.7	— 20.1	— 30.7	7	— 30.1
	300 . . .	26	9440	9585	9342	26	— 41.0	— 36.2	— 46.3	4	— 43.0
	200 . . .	25	12110	12260	11955	25	— 55.7	— 48.9	— 60.9	—	—
	150 . . .	21	13939	14080	13770	21	— 60.2	— 55.3	— 64.9	—	—
	100 . . .	19	16319	16558	16278	19	— 64.2	— 59.2	— 72.4	—	—
	70 . . .	11	18609	18720	18500	11	— 63.5	— 57.4	— 67.3	—	—
	60 . . .	11	19555	19669	19456	11	— 61.6	— 57.0	— 65.2	—	—
	50 . . .	11	20705	20873	20596	11	— 57.5	— 51.8	— 61.1	—	—
	40 . . .	2	22122	22198	22047	2	— 54.3	— 51.2	— 57.4	—	—
	30 . . .	1	24075	—	—	1	— 48.6	—	—	—	—
	20 . . .	1	26747	—	—	1	— 46.0	—	—	—	—
	10 . . .	—	—	—	—	—	—	—	—	—	—
Aswan 1200 U.T.	Surface . . .	21	* 987m.b.	* 993m.b.	* 984m.b.	21	33.5	39.0	27.0	21	2.2
	1000 . . .	21	79	130	48	—	—	—	—	—	—
	850 . . .	21	1509	1534	1492	21	20.7	24.7	15.7	8	— 3.8
	700 . . .	21	3148	3166	3118	21	9.0	12.2	6.5	14	— 8.6
	600 . . .	20	4405	4435	4368	20	0.4	2.9	— 3.5	14	— 12.7
	500 . . .	20	5813	5875	5796	20	— 8.5	— 4.3	— 12.0	9	— 21.1
	400 . . .	19	7535	7592	7465	19	— 19.9	— 16.2	— 24.2	4	— 29.0
	300 . . .	19	9600	9691	9500	19	— 36.4	— 31.0	— 40.6	3	— 40.9
	200 . . .	19	12304	12453	12176	19	— 53.3	— 49.8	— 57.7	—	—
	150 . . .	19	14174	14277	14034	19	— 61.3	— 53.5	— 66.8	—	—
	100 . . .	19	16582	16705	16477	19	— 68.7	— 62.2	— 76.1	—	—
	70 . . .	14	18743	18830	18670	14	— 67.3	— 61.8	— 70.3	—	—
	60 . . .	13	19683	19775	19597	13	— 62.6	— 59.3	— 66.3	—	—
	50 . . .	11	20826	20926	20767	11	— 55.6	— 46.7	— 60.9	—	—
	40 . . .	6	22274	22377	22214	6	— 50.3	— 47.6	— 52.1	—	—
	30 . . .	6	24178	24315	24092	6	— 44.2	— 36.5	— 49.4	—	—
	20 . . .	4	25865	26888	26807	4	— 38.7	— 35.0	— 40.8	—	—
	10 . . .	—	—	—	—	—	—	—	—	—	—

N = The number of cases the element has been observed during the month.

* The atmospheric pressure corrected to the elevation of the radiosonde stations.

Table B 2.—MEAN AND EXTREME VALUES OF THE FREEZING LEVEL AND THE TROPOAUSE.
THE HIGHEST WIND SPEED IN THE UPPER AIR

ABRIL — 1967

Station	Freezing Level									First Tropopause									Highest wind speed				
	Mean			Highest			Lowest			Mean			Highest			Lowest			Altitude (gpm)		Pressure (mb.)		
	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Direction (000-360)	Speed in Knots			
0000 U.T.	Mersa Matruh (A)	3173 (29)	696 (29)	- 8.0 (19)	4050	623	- 8.8	1700	828	-7.1	11267 (16)	224 (16)	-57.8 (16)	12700	180	-63.7	9710	285	-47.8	9620	288	270	175
	Helwan . . .	3534 (28)	663 (28)	-12.4 (14)	5040	546	—	2490	751	-4.4	10714 (20)	188 (20)	-57.6 (20)	16323	100	-64.4	9600	293	-42.4	7795	378	280	148
	Aswan . . . (A)	4234 (29)	611 (29)	-10.0 (16)	4680	580	-12.2	3720	648	—	16288 (24)	104 (24)	-73.9 (24)	18160	76	-67.8	14440	137	-63.7	11690	215	240	142
1200 U.T.	Mersa Matruh (A)	3480 (24)	645 (24)	- 8.7 (13)	4140	622	- 8.4	1800	827	-7.5	11788 (15)	208 (15)	-58.5 (15)	13360	164	-64.8	11000	228	-54.6	9700	284	284	183
	Helwan . . .	3760 (28)	646 (28)	- 9.2 (8)	4480	590	—	3000	705	—	13305 (21)	170 (21)	-61.9 (21)	16451	100	-65.0	11320	225	-55.1	11930	211	280	137
	Aswan . . . (A)	4474 (20)	602 (20)	-13.8 (12)	4920	571	-15.8	3900	638	-7.9	15849 (17)	116 (17)	-68.7 (17)	17790	88	-73.0	14320	145	-63.4	12600	—	250	130

Table B 3.—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES.
MERSA MATRUH (A) APRIL - 1967

Time	Pressure Surface (Millibar.)	Wind between specified ranges of direction (000°-360°)														Number of Calm winds	Total Number of Observations (P.N.)	Mean Scalar wind Speed (Knots)										
		345		015		045		075		105		135		165		195		225		255		285						
		014	014	014	074	104	134	164	194	224	254	284	314	344	014	014	014	014	014	014	014	014	014	014	014			
		N (ft) m	N (ft) m	N (ft) m	N (ft) m	N (ft) m	N (ft) m	N (ft) m	N (ft) m	N (ft) m	N (ft) m	N (ft) m	N (ft) m	N (ft) m	N (ft) m	N (ft) m	N (ft) m	N (ft) m	N (ft) m	N (ft) m	N (ft) m	N (ft) m						
0000 U.T.	Surface	1	9	1	20	0	—	0	—	3	4	4	7	1	13	1	2	1	17	4	8	5	11	2	11	6	29	7
	1000	0	—	1	8	2	19	3	12	1	25	4	16	0	—	0	—	1	25	2	16	7	15	2	14	1	24	15
	850	0	—	1	2	2	14	1	9	1	18	0	—	1	22	1	15	3	24	4	29	8	29	1	42	1	24	23
	700	2	10	1	23	0	—	0	—	0	—	0	—	0	—	3	20	12	40	4	37	1	26	0	0	23	33	
	600	1	19	1	13	0	—	0	—	0	—	0	—	0	—	1	23	11	44	8	34	0	0	0	0	22	36	
	500	2	30	0	—	0	—	0	—	0	—	0	—	0	—	9	51	6	48	2	32	0	0	19	46			
	400	1	29	0	—	0	—	0	—	0	—	0	—	0	—	10	75	7	57	1	25	0	0	19	63			
	300	2	26	0	—	0	—	0	—	0	—	0	—	0	—	8	112	9	73	0	—	0	0	19	84			
	200	1	12	0	—	0	—	0	—	0	—	0	—	0	—	6	99	4	88	1	32	0	0	12	82			
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	73	2	27	0	0	5	55			
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	37	2	27	0	0	0	0	3	30			
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	28	1	13	0	0	0	0	2	20			
	60	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	34	0	0	0	0	0	0	1	34			
	50	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	13	0	0	0	0	0	0	1	13			
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
1200 U.T.	Surface	1	11	4	7	3	12	3	11	1	13	0	—	2	17	0	—	1	26	0	—	1	8	8	20	0	24	14
	1000	4	13	2	10	2	13	2	14	0	—	0	—	1	20	1	30	0	—	1	7	5	24	3	22	1	22	17
	850	1	5	0	—	0	—	2	14	1	20	0	—	2	17	2	22	4	27	4	21	6	12	1	18	0	23	
	700	0	—	1	8	1	9	0	—	0	—	0	—	0	—	5	28	7	41	6	30	1	13	1	22	29		
	600	1	15	1	22	0	—	0	—	0	—	0	—	0	—	4	38	9	43	6	41	1	8	0	22	38		
	500	1	27	0	—	0	—	0	—	0	—	0	—	0	—	3	50	10	55	6	48	1	7	0	21	49		
	400	1	21	0	—	0	—	0	—	0	—	0	—	0	—	1	70	10	64	6	47	1	13	0	19	59		
	300	0	—	1	20	0	—	0	—	0	—	0	—	0	—	1	73	12	97	4	48	0	—	0	18	80		
	250	1	19	0	—	0	—	0	—	0	—	0	—	0	—	1	97	4	89	7	74	0	—	0	13	76		
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	56	3	60	1	32	0	6	54		
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	36	3	31	0	—	0	4	32				
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	24	1	14	0	—	0	0	2	19			
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			

Table B 3.(contd.)—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES.

HELWAN—APRIL 1967

Time	Pressure Surface (Millibar)	Wind between specified ranges of direction (000 - 360)°													Number of Calm winds	Total Number of Observations (TN)	Mean Scalar wind Speed (Knots)							
		315	015	045	075	105	135	165	195	225	255	285	315	014										
		014	044	074	104	134	164	194	224	254	284	314	344	N m	N m	N m	N m	N m						
0000 U.T.	Surface	6	8	11	13	1	22	2	10	1	8	1	6	0	—	1	3	0	—	1	5	1	28	10
	1000	2	9	4	21	6	—	1	9	0	—	0	—	0	—	0	—	0	—	1	15	0	8	16
	850	5	11	2	15	2	15	1	13	0	—	0	—	1	5	0	—	1	29	4	21	8	19	0
	700	5	23	1	13	0	—	1	6	0	—	0	—	0	—	0	—	1	12	9	35	7	28	27
	600	1	7	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	56	10	33	9	30	26
	500	0	—	1	12	0	—	0	—	0	—	0	—	0	—	0	—	1	76	11	45	11	36	40
	400	1	24	1	12	0	—	0	—	0	—	0	—	0	—	0	—	1	32	9	50	7	57	57
	300	2	28	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	58	5	68	2	94	0
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	23	1	52	0	—	0
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	32	0	—	0	—	1
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	3	12	8	12	0	—	0	—	0	—	0	—	0	—	2	5	4	9	3	11	2	14	6
	1000	1	15	3	20	0	—	0	—	0	—	0	—	0	—	0	—	1	17	0	—	2	10	7
	850	4	10	5	11	0	—	2	6	0	—	0	—	0	—	0	—	1	10	7	12	4	17	12
	700	2	32	1	15	1	17	0	—	0	—	0	—	0	—	1	15	6	26	6	28	8	27	26
	600	1	8	0	—	1	4	0	—	0	—	0	—	0	—	0	—	2	17	14	14	5	35	33
	500	1	20	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	44	15	52	6	44	34
	400	1	14	0	—	0	—	0	—	0	—	0	—	0	—	0	—	14	53	6	42	2	48	51
	300	2	18	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	70	6	60	1	78	15
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	78	2	62	1	69	8
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	42	2	62	0	—	52
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	31	0	—	0	—	31
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	12	0	—	0	—	12
	60	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	22	0	—	0	—	22
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the wind has been observed during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

Table B 3.(contd) NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES.
ASWAN (A) — ABRIL 1967

Time	Pressure Surface (Millibar.)	Wind between specified ranges of direction (000— 360)°														Number of Calm winds	Total Number of Observations (TN)	Mean Scalar wind Speed (Knots)										
		345		015		0-5		075		105		135		165		195		225		255		285						
		N (ft) m	N m	N (ft) m	N m	N (ft) m	N m	N (ft) m	N m	N (ft) m	N m	N (ft) m	N m	N (ft) m	N m	N (ft) m	N m	N (ft) m	N m	N (ft) m	N m	N (ft) m	N m	N (ft) m				
0000 U.T.	Surface	12	8	11	10	0	—	0	—	0	—	1	6	0	—	0	—	1	7	1	7	3	10	0	29	9		
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	850	4	15	3	17	3	11	0	—	0	—	0	—	0	—	0	—	1	6	3	12	7	13	7	14	0	28	13
	700	3	25	0	—	0	—	0	—	0	—	0	—	0	—	1	14	0	—	9	24	10	21	5	22	0	28	22
	600	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	11	34	8	27	7	28	0	26	30
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	30	11	41	7	31	5	32	0	25	36		
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	44	13	46	5	38	4	43	0	24	44		
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	84	10	61	8	45	3	84	0	23	60		
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	86	7	85	12	74	1	86	0	23	79		
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	63	9	67	7	75	0	—	0	19	69		
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	36	11	39	2	42	0	—	0	15	39		
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	18	3	13	4	14	1	16	2	12	0	11	14
	60	1	2	0	—	0	—	0	—	1	11	0	—	0	—	1	18	1	8	1	8	1	20	1	7	10		
	50	1	8	0	—	1	6	1	2	2	10	0	—	0	—	0	—	3	8	0	—	0	—	0	8	7		
	40	0	—	0	—	2	10	2	19	1	15	0	—	0	—	0	—	0	—	0	—	1	8	0	6	14		
	30	1	10	0	—	2	25	2	22	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	5	21		
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	10	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
1200 U.T.	Surface	8	10	8	12	0	—	0	—	1	7	0	—	0	—	1	7	0	—	0	—	1	4	1	14	1	21	10
	1000	—	—	—	—	—	—	—	—	0	—	1	0	—	0	0	—	0	—	0	—	6	17	5	12	0	21	—
	850	5	7	4	10	1	11	0	—	0	—	0	—	0	—	1	16	4	26	4	19	9	26	0	21	12		
	700	3	16	0	—	0	—	0	—	0	—	0	—	0	—	0	—	7	31	7	23	4	30	0	20	26		
	600	2	14	0	—	0	—	0	—	0	—	0	—	0	—	0	—	8	37	7	37	4	35	0	20	35		
	500	1	19	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	42	9	50	7	43	1	48	0	19	47
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	64	7	69	8	52	1	70	0	19	61
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	87	6	80	7	75	2	80	0	18	79
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	10	65	4	75	0	—	0	—	0	14	63
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	30	3	34	2	26	3	35	0	—	0	9	32
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	8	0	—	0	—	0	—	0	3	9
	70	0	—	0	—	1	8	0	—	1	11	0	—	0	—	0	—	1	8	0	—	0	—	0	—	0	2	2
	60	0	—	0	—	0	—	1	14	0	—	1	6	0	—	0	—	0	—	0	—	0	—	0	—	0	2	2
	50	0	—	0	—	0	—	0	—	1	23	0	—	1	18	0	—	0	—	0	—	0	—	0	—	0	1	10
	40	0	—	0	—	0	—	0	—	0	—	1	18	0	—	0	—	0	—	0	—	0	—	0	—	0	1	23
	30	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	18
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the element has been observed during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

REVIEW OF AGRO-METEOROLOGICAL STATIONS

EL KASR — APRIL 1967

This month was mild and slightly less rainy than normal. The mean daily air temperature at 2 metres above ground was 0.1 °C below normal and the total amount of rainfall was 0.5 mm. below normal. The month was characterised by 3 intense heat waves on 1st — 2nd, 13th — 14th, and 29th — 30th with peaks on 1st, 14th and 29th respectively and two hot days on 19th and 22nd. The highest maximum air temperature for the month occurred on 14th and 19th. Two moderate cold waves occurred in the periods 3rd — 12th and 23rd — 25th.

The extreme maximum soil temperatures at depths between 2 and 20 cm, and at 100 cm. depth were lower than the corresponding values of April 1966, by values ranging between 1.9 °C at 2 cm. depth and 0.2 °C at 100 cm. depth. At 50 cm. depth the value was 0.2 °C higher than the corresponding value of last April. The extreme minimum soil temperatures at 2 and 5 cm. depths were higher than the corresponding values of April 1966, by 4.4 °C and 1.4 °C respectively. At depths between 10 and 100 cm. the values were lower than the corresponding values of last April by values ranging between 0.7 °C at 10 and 50 cm. depths and 0.4 °C at 20 cm. depth.

Mean daily pan evaporation was 0.45 mm. higher than the corresponding value of April 1966. Total actual duration of bright sunshine was 7.8 hours higher than the corresponding value of last April.

TAHRIR — APRIL 1967

Compared with April 1966, this month was cold and humid. Mean daily air temperature at 2 metres above ground was 1.7 °C lower, while mean daily relative humidity was 6% higher than the corresponding value of April 1966. Total amount of rainfall was nil against trace in last April. The month was characterised by warm spells on 2nd, 19th and 22nd ; and an intense heat wave in the period 11th — 15th with peak on 15th, which was associated with the highest maximum air temperature and the lowest relative humidity for the month. The month was also characterised by two cold waves in the periods 3rd — 5th and 7th — 10th with peaks on 4th and 8th respectively. The first wave was the most intense and was associated with the lowest value of maximum air temperature on the 4th.

The extreme maximum soil temperature at 2 cm. depth was 2.2 °C higher than the corresponding value of April 1966, while at depths between 5 and 100 cm. the extreme maximum values were lower than the corresponding values of last April by values ranging between 2.6 °C at 10 cm. depth and 1.4 °C at 100 cm. depth.

The extreme minimum soil temperatures at depths between 2 and 10 cm. were higher than the corresponding values of April 1966, by values ranging between 6.7 °C at 2 cm. depth and 0.3 °C at 10 cm. depth. The values at depths between 20 and 100cm. were lower than the corresponding values of last April by values ranging between 1.2°C at 1000 cm. depth and 0.4 °C at 20 cm. depth.

Mean daily pan evaporation was 1.69 mm. lower than the corresponding value of April 1966, Total actual duration of bright sunshine was 9.4 hours higher than the corresponding value of last April.

BAHTIM — APRIL 1967

This month was slightly colder than normal. It was characterized by 3 warm spells. The 1st was on the 2nd of the month, the 2nd occurred on the 14th and 15th giving the absolute maximum of air temperature for the month on 15th, the 3rd, spell occurred on the 19th. The month was also characterized by two cold spells. The 1st prevailed through the period from the 3rd to the 9th and the 2nd prevailed from the 24th to the 29th.

GIZA — APRIL 1967

This month was slightly colder and slightly more rainy than normal. The mean daily air temperature at 2 metres above ground was 0.2 °C below normal ; the mean daily relative humidity was 1% below normal and total rainfall was 0.7 mm. above normal.

The month was characterized by warm spells on 2nd, 19th and 23rd ; and an intense heat wave in the period 11th — 15th with peak on 15th which was associated with the highest value of maximum air temperature and the lowest value of relative humidity for the month. The month was also characterized by an intense cold wave in the period 3rd - 10th with peak on 5th.

The extreme maximum soil temperatures in the dry field at depths between 2 and 100 cm. were lower than the corresponding values of April 1966, by values ranging between 3.4 °C at 5 cm. depth and 0.7 °C at 100 cm. depth. The extreme minimum soil temperatures at 2 cm. depth was 6.2 °C higher than the corresponding value of last April ; while at depths between 5 and 100 cm. the values were lower than the corresponding values of last year by values ranging between 0.5 °C at 5 cm. depth and 1.5 °C at 20 cm. depth.

Mean daily pan evaporation was 0.72 mm. lower than the corresponding value of April 1966. Mean daily potential evapotranspiration was 0.5 mm. lower than the corresponding value of last April. Total actual duration of bright sunshine was 17.1 hours higher than the corresponding of April 1966.

KHARGA—APRIL 1967

This month was warmer than normal. The mean daily air temperature at 2 metres height above ground was 1.1 °C above normal and the total rainfall was nil against trace which is the normal value for April. The month was characterised by 4 heat waves in the periods 2n 1 — 3rd, 11th -- 15th, 17th -- 20th and 22nd — 23rd, with peaks on 3rd, 15th, 19th and 23rd respectively. The last wave was the most excessive and was associated with the highest value of maximum air temperature on the 23rd. Two cold waves occurred in the periods 4th-9th, 24th-29th, with peaks on 4th and 24th respectively. The former wave was the most intense and was associated with the lowest maximum air temperature on the 4th.

The extreme maximum soil temperature at 5 cm. depth was 0.2 °C higher than the corresponding values of April 1966, while at 2 cm. depth and at depths between 10 and 100 cm. the extreme maxima were lower than the corresponding values of last April by values ranging between 1.8 °C at 20 cm. depth and 0.4 °C at 100 cm. depth. The extreme minimum soil temperatures at 10 and 20 cm. depths were higher than the corresponding values of April 1966, by 0.1 °C and 0.2 °C respectively ; while at 2, 5, 50 and 100 cm. depths the values were lower than the corresponding values of last April by values ranging between 2.1 °C at 2 cm. depth and 0.7 °C at 100 cm. depth.

Mean daily pan evaporation was 3.83 mm. higher than the corresponding value of April 1966. Total actual duration of bright sunshine was 8.3 hours lower than the corresponding value of last April.

**Table C 1.—AIR TEMPERATURE AT 2 METRES ABOVE GROUND
APRIL — 1967**

STATION	Air Temperature (°C)					Mean Duration in hours of daily air temperature above the following values										
	Mean Max.	Mean Min.	Mean of the day	Night time mean	Day time mean	-5°C	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C
I Kaser	23.4	10.9	17.1	14.1	18.9	24.0	24.0	24.0	22.6	16.7	4.9	1.2	0.6	0.0	0.0	0.0
Ahhrir	27.7	11.5	19.2	15.2	21.6	24.0	24.0	24.0	23.5	16.9	10.4	4.1	0.6	0.0	0.0	0.0
Sahitim	27.8	9.2	18.4	13.2	21.4	24.0	24.0	24.0	20.6	14.9	9.5	4.0	0.7	0.0	0.0	0.0
Izra	27.7	12.3	20.2	16.9	22.2	24.0	24.0	24.0	23.6	18.7	11.8	4.8	1.1	0.0	0.0	0.0
Mcharga	33.6	16.2	25.2	21.3	27.6	24.0	24.0	24.0	24.0	22.7	18.5	11.9	5.8	1.2	0.0	0.0

**Table C 2.—ABSOLUTE VALUES OF AIR TEMPERATURE AT 2 METRES ABOVE GROUND,
ABSOLUTE MINIMUM AIR TEMPERATURE AT 5 cms ABOVE GROUND OVER
DIFFERENT FIELDS.**

APRIL — 1967

STATION	Max. Temp. at 1½ metres (°C)				Min. Temp. at 1½ metres (°C)				Min. Temp. at 5 cms. above (°C)			
	Highest		Lowest		Highest		Lowest		Dry soil		Grass	
	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date
I Kaser	35.8	14,19	18.2	4	16.1	30	5.7	10	3.2	10	—	—
Ahhrir	35.9	15	21.2	4	17.1	23	7.5	1.8	5.2	5	—	—
Sahitim	35.6	15	21.7	4,5	16.2	23	5.0	5	1.2	5	—	—
Izra	36.4	15	21.1	5	18.9	23	6.7	5	4.8	4	4.4	4
Mcharga	41.6	23	25.8	4	23.0	20	9.3	7	6.0	6	—	—

Table C 3.—(SOLAR+SKY) RADIATION, DURATION OF BRIGHT SUNSHINE, RELATIVE HUMIDITY, VAPOUR PRESSURE AT 2 METRES ABOVE GROUND, EVAPORATION & RAINFALL

APRIL — 1967

STATION	(Solar + Sky) Radiation gm. cal/cm ²	Duration of Bright Sunshine (hours)			Relative Humidity			Vapour pressure (mms)					Evaporation (mms)	Rainfall (mms)					
		Total Actual monthly	Total Possible monthly	%	Mean of day	1200 U.T.	Lowest	Date	Mean of day	1200 U.T.	Highest	Date	Lowest	Date	Piche	Pan class A	Total Amount Monthly	Max. Fall in one day	Date
I Kaser .	490.2	296.1	389.8	76	68	58	16	14,19	9.5	10.4	13.8	30	4.2	6	6.9	9.06	2.7	0.9	18
Ahhrir .	598.7	312.8	387.1	81	60	35	17	15	9.4	8.8	14.2	30	3.7	3	8.6	8.76	Tr.	Tr.	30
Sahitim .	—	312.9	366.3	81	59	33	18	14	8.7	8.3	15.8	13	3.8	3	9.0	8.95	1.3	1.3	3
Izra . . .	612.1	315.9	388.9	82	53	31	15	15	8.6	7.7	11.2	3	5.6	22	10.2	9.02	1.4	1.4	3
Mcharga .	532.9	319.7	381.6	84	21	12	7	13,14,15	4.6	4.4	7.2	10	2.0	3	21.8	19.15	0.0	0,0	0

**Table C 4.—EXTREME SOIL TEMPERATURE AT DIFFERENT DEPTHS (cms)
IN DIFFERENT FIELDS**

APRIL — 1967

STATION	Highest (H) Lowest (L)	Extreme soil temperature (°C) in dry field at different depths (cms.)								Extreme soil temperature (°C) in grass field at different depths (cms.)							
		2	5	10	20	50	100	200	300	2	5	10	20	50	100	200	300
El Ksar	H	38.1	33.6	28.1	23.8	22.0	20.6	20.0	—	—	—	—	—	—	—	—	—
	L	13.4	12.3	12.9	16.0	17.5	17.7	19.0	—	—	—	—	—	—	—	—	—
Tahrir	H	46.8	40.6	34.0	29.2	25.3	23.8	22.3	21.8	—	—	—	—	—	—	—	—
	L	15.5	15.4	15.3	17.7	19.1	19.2	19.8	20.6	—	—	—	—	—	—	—	—
Bahtim	H	45.2	33.8	30.5	25.8	23.6	21.7	20.4	—	—	—	—	—	—	—	—	—
	L	16.6	15.4	16.0	18.5	18.1	18.4	19.5	—	—	—	—	—	—	—	—	—
Giza	H	—	37.6	30.9	27.8	25.8	24.2	22.6	23.3	—	24.4	23.2	21.5	20.6	—	—	—
	L	—	14.8	18.2	20.1	20.6	20.8	21.8	23.0	—	12.3	14.4	15.6	16.0	—	—	—
Kharga	H	50.0	45.0	35.8	31.0	28.6	27.0	25.8	26.3	—	—	—	—	—	—	—	—
	L	10.7	13.8	19.5	22.4	23.4	23.6	24.8	26.1	—	—	—	—	—	—	—	—

Table C 5.—SURFACE WIND

APRIL — 1967

STATION	Wind Speed m/sec at 1½ metres			Days with surface wind speed at 10 metres								Max. Gust (knots) at 10 metres	
	Mean of the day	Night time mean	Day time mean	≥ 10 knots	≥ 15 knots	≥ 20 knots	≥ 25 knots	≥ 30 knots	≥ 35 knots	≥ 40 knots		value	Date
El Ksar	3.6	2.8	4.4	—	—	—	—	—	—	—	—	—	—
Tahrir	2.5	1.7	3.3	28	16	8	4	1	0	0	40	19	—
Bahtim	2.5	2.0	3.1	—	—	—	—	—	—	—	—	—	—
Giza	2.4	2.0	2.9	27	15	1	0	0	0	0	27	9,20	—
Kharga	3.5	2.5	4.6	29	23	16	5	—	—	—	37	24	—

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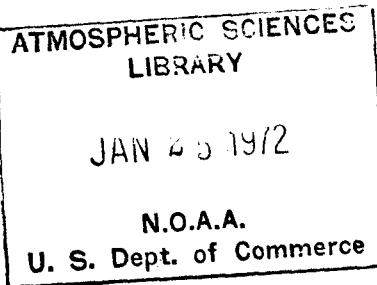
UNITED ARAB REPUBLIC

MONTHLY WEATHER REPORT

VOLUME 10

NUMBER 5

MAY, 1967



J.D.C. 551.506.1 (62)

**METEOROLOGICAL DEPARTMENT
CAIRO**

PUBLICATIONS OF THE METEOROLOGICAL DEPARTMENT OF THE UNITED ARAB REPUBLIC—CAIRO

In fulfilment of its duties, the U.A.R. Meteorological Department issues several reports and publications on weather, climate and agrometeorology. The principal publications are described on this page.

Orders for publications should be addressed to :
"The Director General, Meteorological Department, Kubri-el-Qubbeh — CAIRO".

THE DAILY WEATHER REPORT

This report is issued daily by the Meteorological Department since the year 1901. It includes surface and upper air observations carried out by the relevant networks of the Republic at the principal hours of observations.

As from January 1968 this report was revised to include a condensed representative selection of surface and upper air observations besides the 1200 U.T. surface & 500 mb charts.

THE MONTHLY WEATHER REPORT

First issued in 1909, the Monthly Weather Report served to give a brief summary of the weather conditions that prevailed over Egypt during the month, with a table showing the mean values for few meteorological elements and their deviations from the normal values. From 1954 to 1957 this report was in a rapid state of development and extension resulting into a voluminous report on January 1958 giving surface, upper air, and agro-meteorological data for U.A.R.

As from January 1964, the Monthly Weather Report was pressed to give climatological data for a representative selection of synoptic stations.

THE AGRO-METEOROLOGICAL ABRIDGED MONTHLY REPORT

Gives a review of weather experienced in the agro-meteorological stations of the U.A.R. as well as monthly values of certain elements.

THE ANNUAL REPORT

This report gives annual values and statistics for the various meteorological elements, together with a summary of the weather conditions that prevailed during all months of the year.

CLIMATOLOGICAL NORMALS FOR EGYPT

A voluminous edition was issued in March 1958 which brings normals and mean values up till 1960.

METEOROLOGICAL RESEARCH BULLETIN

First issued in January 1969 on a bi-annual basis. It includes research works carried out by members of staff of "The Meteorological Institute for Research and Training" and the Operational Divisions of Meteorological Department.

TECHNICAL NOTES

As from October 1970, the Meteorological Department started to issue a new series of publications in the form of Technical Notes (non periodical) on subjects related to studies and applications of meteorology in different fields for the benefit of personnel working in these fields.

The first Technical Note I was issued in October 1970 on : Sandstorms & Duststorms in the U.A.R.



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METEOROLOGICAL DEPARTMENT
CAIRO

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GENERAL SUMMARY OF WEATHER CONDITIONS

MAY 1967

Generally mild in the northern parts, rather hot in the central parts and hot in the southern parts, intervened with two khamsin disturbances. Heavy thundery rain and hail over scattered localities in the northern parts round the 12th, 15th & 16th. Daily rainfall records in few localities.

GENERAL DESCRIPTION OF WEATHER

The khamsin weather this month was abnormal, and two khamsin disturbances were experienced round the periods : (5th—10th) & (18th—21st). Accordingly prevailing weather was abnormally of the mild humid type.

In addition the month was abnormally heavy rainy round the 12th, 15th & 16th in scattered localities in the north, where precipitation was associated with thunderstorms, hail and daily rainfall attained new records.

Rising sand occurred during several days in scattered parts mainly in the Red Sea, Western Desert and Upper Egypt districts. Several occasions of early morning mist & fog were reported in few localities in Delta, Canal & Cairo areas.

PRESSURE DISTRIBUTION

The most outstanding features of pressure distribution over the surface maps during this month were :

- The Siberian Anticyclone.
- The Atlantic Anticyclone and its south-east extension over North Africa.
- Deep low pressure systems passing through North Europe & their secondaries through Central Europe.
- Desert khamsin secondaries passing near the coast of North Africa.
- Complex thermal low pressure over Sudan, Arabia & the Arabian Gulf.

During this month, the barometric pressure in U.A.R. experienced four consecutive falls round the periods : (4th—7th), (10th—13th), (17th—21st) & (26th—29th) respectively.

During the first period, two khamsin secondaries developed over NW Africa on the 4th, then proceeded eastwards and passed through north of U.A.R. on the 6th & 7th respectively.

The pressure fall during the second period was due to extension of the thermal trough over Arabia north-westwards through East Mediterranean.

During the third period, a desert khamsin secondary proceeded eastwards south of coast of North Africa and traversed north of U.A.R. on the 21st.

The last pressure fall during this month occurred as a result of the extension of the thermal trough over the Arabian Gulf through East Mediterranean.

During the rest periods of the month, high pressure established over East Mediterranean & NE Africa and the barometric pressure over U.A.R. experienced consecutive rises.

The most important features of pressure distribution over the 700 & 500 mb upper charts were :

- Two deep low pressure systems over North Eurasia & North Atlantic.

— Secondary upper troughs (or lows) passing through middle latitudes (between 30°N & 45°N) and traversing U.A.R. round the 2nd, 11th, 16th, 25th & 30th; the most pronounced of which were round the 11th & 16th and were responsible for the abnormal heavy thundery precipitation over north of U.A.R.

— Upper high pressure belt south of latitude 30°N.

SURFACE WIND

The prevailing winds during this month blew generally from the N ly & NW ly directions and to a less extent from the NE.

Winds were light to moderate in general, though they became fresh and strong during many days of the month in scattered parts of the Red Sea & Western Desert, Mediterranean & Upper Egypt districts.

Gales were reported at Zaher on the 1st, at Fayed on the 12th and at Hurghada on the 16th, 23rd & 24th.

TEMPERATURE

Maximum temperature showed rather appreciable rises above normal (4°C to 8°C) during the two khamsin heat waves, and was moderately below normal (2°C—4°C) the rest of the month. Its values ranged most days of the month between 22°C & 30°C in the northern parts, between 28°C & 34°C in the central parts and between 34°C & 40°C in the southern parts.

The absolute maximum temperature was 45.7°C at Aswan on the 22nd.

Minimum temperature showed less departures from normal than maximum temperatures, about (2°C—6°C) above normal during the heat waves and (1°C—3°C) below normal the rest of the month. Its values ranged generally between 12°C & 19°C in the northern & central parts, and between 18°C & 23°C in the southern parts.

The absolute minimum temperature was 8.9°C at Balteam on the 4th.

PRECIPITATION

Rain fell over north of the Country till Cairo area round the 1st, 11th, 12th, 15th & 16th. It was generally light and subnormal over the northern coast ; but it was abnormally heavy and associated with hail and thunderstorms during some days over scattered parts in Lower Egypt & Cairo areas, where its monthly amounts exceeded appreciably the normal values. It is worthy of mention that the daily rainfall was record at Shebin El Kom on the 12th (28 mms), Abbasiya on the 16th (13mms), and Embaba on the 15th (23 mms).

The highest daily rainfall was 43.3 mms at Balteam on the 16th.

The highest monthly rainfall was 57.7 mms at Balteam.

M. F. TAHA

Under Secretary of State
Director General
Meteorological Department

Cairo, July 1971

Table A 1. — MONTHLY VALUES OF THE ATMOSPHERIC PRESSURE, AIR TEMPERATURE,
RELATIVE HUMIDITY, BRIGHT SUNSHINE DURATION & PICHE EVAPORATION.

MAY — 1967

STATION	Atmospheric Pressure (mbs) M.S.L.	Air Temperature °C										Relative Humidity %	Bright Sunshine Duration (Hours)	Piche Evaporation (mm's) Mean	
		Maximum		Minimum		$\frac{A+B}{2}$	Dry Bulb		Wet Bulb		D.F. Normal or Average				
		Mean	D.F. Normal or Average (A) Mean	D.F. Normal or Average (B) Mean	D.F. Normal or Average		Mean	D.F. Normal or Average	Mean	D.F. Normal or Average	Mean	Total Actual	Total Possible	%	
Sallum	1013.6	- 0.3	25.6	- 0.6	16.2	- 0.3	20.9	21.8	- 0.1	16.4	+ 0.2	62	+ 3	-	-
Mersa Matruh . (A)	1014.0	+ 0.5	24.8	- 0.7	14.8	+ 0.3	19.8	19.9	- 0.2	16.2	- 0.1	66	0	-	-
Alexandria . . (A)	1013.6	+ 0.7	26.3	- 0.3	16.2	- 0.3	21.2	20.8	- 0.6	17.1	- 0.6	67	0	340.7	425.6
Port Said . . . (A)	1012.5	0.0	24.2	- 1.4	19.0	- 0.6	21.6	21.2	- 0.8	17.9	- 1.1	71	+ 1	(300.0)	(412.0)
El Arish	-	-	-	-	-	-	-	-	-	-	-	-	-	(73)	7.1
Ghazza	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tanta (A)	1012.3	+ 0.2	29.8	- 1.9	15.0	+ 0.6	22.4	21.6	- 1.0	16.5	+ 0.1	57	+ 8	324.0	424.5
Cairo (A)	1012.4	+ 0.2	30.3	- 2.0	17.2	- 0.2	23.8	23.3	- 1.3	16.5	- 0.5	46	+ 3	-	-
Fayoum	1011.7	- 0.3	32.0	- 1.7	16.5	- 0.7	24.2	24.2	- 0.8	17.2	+ 1.2	47	+ 12	-	8.6
Minya . . . (A)	1011.1	+ 0.1	33.3	- 1.6	15.7	- 0.7	24.5	24.7	- 1.0	16.0	- 0.6	33	0	359.5	419.4
Assyout . . . (A)	1010.1	- 0.6	33.7	- 2.4	18.6	- 0.6	26.2	26.5	- 1.1	16.0	+ 0.3	24	+ 2	-	21.5
Luxor (A)	1009.4	+ 0.6	37.0	- 1.8	19.8	- 0.3	28.4	29.0	- 1.1	16.8	- 0.6	23	+ 1	-	14.2
Aswan (A)	1008.4	- 0.2	37.8	- 0.3	20.9	+ 0.2	29.4	29.8	- 0.2	15.2	- 0.1	12	0	-	22.5
Siwa	1012.7	- 0.2	32.5	- 1.7	17.1	+ 0.6	24.8	25.4	- 0.2	15.5	0.0	29	0	-	16.2
Bshariya	1012.4	- 0.6	32.1	- 2.3	17.9	+ 0.7	25.0	25.8	+ 0.1	15.7	- 0.2	29	+ 1	-	12.2
Farafra	1013.0	- 0.6	33.1	- 1.2	16.4	- 0.3	24.8	25.0	- 0.5	15.1	+ 0.6	29	+ 6	-	19.3
D.khla	1011.9	+ 1.5	35.3	- 1.6	17.5	- 2.0	26.4	26.3	- 0.8	14.6	- 0.4	16	- 2	-	20.1
Kharga	1010.4	+ 0.1	36.1	- 1.6	20.5	- 0.4	28.3	28.7	+ 0.7	15.3	- 0.4	21	- 1	357.1	413.4
Tor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hurghada	1009.5	+ 0.2	30.2	+ 0.5	19.9	- 0.5	25.0	25.4	- 0.2	17.4	- 0.6	41	-	-	18.5
Queir	1010.3	+ 1.2	28.7	- 1.6	21.8	- 1.0	25.2	25.4	- 1.3	18.2	- 0.4	47	+ 3	-	17.1

Note : Actual number of sunshine records was 30 days at Port-Said.

Table A2.—MAXIMUM AND MINIMUM AIR TEMPERATURES

MAY — 1967

Station	Maximum Temperature °C										Mean Grass Min. Temp.	Minimum Temperature °C									
	Highest Date	Lowest Date	No. of Days with Max-Temp.					D. From Normal Max Temp!	Lowest Date	D. From Normal Min Temp!		No. of Days with Min. Temp.					< 10	< 5	< 0	< -5	
			> 25	> 30	> 35	> 40	> 45					< 10	< 5	< 0	< -5						
Sallum	36.2	4	19.8	1	15	4	2	0	0	16.3	19.4	19	13.6	1.3	0	0	0	0	0	0	
Mersa Matruh (A)	35.7	19	20.8	1	10	3	1	0	0	19.5	19.5	19	11.4	3	0	0	0	0	0	0	
Alexandria (A)	33.8	20	21.5	3	21	2	0	0	0	19.5	21	12.3	4	0	0	0	0	0	0	0	
Port Said (A)	29.0	21	20.7	3	10	0	0	0	0	17.9	20.7	3	12.5	21	0	0	0	0	0	0	
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Chazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Tanta	35.5	20	24.8	12	30	15	1	0	0	—	19.2	9	11.4	4	0	0	0	0	0	0	
Cairo (A)	40.1	20	25.3	12	31	18	2	1	0	—	23.5	21	14.3	5	0	0	0	0	0	0	
Fayoum	40.1	20	27.1	3	31	23	4	1	0	14.6	21.6	21	13.4	4	0	0	0	0	0	0	
Minya (A)	41.2	20	28.0	3	31	16	10	1	0	13.8	20.1	23	12.6	4	0	0	0	0	0	0	
Assyout (A)	42.0	20	28.2	3	31	27	9	1	0	17.5	23.6	21	15.0	4	0	0	0	0	0	0	
Luxor (A)	44.9	22	32.4	16	31	31	23	4	0	13.4	14.0	8	15.9	5	0	0	0	0	0	0	
Aswan (A)	45.7	22	33.0	4	31	31	24	7	1	—	27.4	10	16.4	1	0	0	0	0	0	0	
Siwa	39.9	6	28.0	2	31	22	5	0	0	15.7	23.0	20	12.2	3	0	0	0	0	0	0	
Bahariya	40.1	20	28.1	3	31	27	8	1	0	15.8	13.6	21	14.2	3	0	0	0	0	0	0	
Farafra	41.3	20	28.5	16	31	29	7	2	0	15.5	23.0	21	11.9	3	0	0	0	0	0	0	
Dakhla	43.3	20	29.8	16	31	29	14	3	0	—	24.6	21	12.8	13	0	0	0	0	0	0	
Kharga	42.8	20	31.0	3	31	31	17	5	0	18.1	16.6	8	15.6	13	0	0	0	0	0	0	
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Hurgada	34.4	21	26.7	4	31	16	0	0	0	17.6	25.9	22	16.6	4	0	0	0	0	0	0	
Quseir	33.5	21	25.4	4	31	5	0	0	0	19.3	24.4	22	19.4	13	0	0	0	0	0	0	

Table A 3.—SKY COVER AND RAINFALL

MAY — 1967

Station	Mean Sky Cover Oct.					Rainfall mms.										
	00	06	12	18	Daily	Total	D. From	Max. Fall in one day		Number of Days with Amount of Rain						
	U.T.	U.T.	U.T.	U.T.	Mean	Amount	Normal	Amount	Date	<0 1	≥0 1	≥1 0	≥5 0	≥10	≥25	≥50
Sallum (A)	3.5	2.7	3.2	2.6	2.7	tr.	— 3 3	tr.	19	1	0	0	0	0	0	0
Mersa Matruh (A)	1.9	4.1	3.0	2.7	2.8	1 0	— 1.5	1.0	15	1	1	0	0	0	0	0
Alexandria (A)	3.4	4.7	3.4	3.2	3.5	0 0	— 2.0	0.0	—	0	0	0	0	0	0	0
Port Said (A)	2.0	3.6	2.4	2.2	2.3	1.1	— 1.9	1.1	11	0	1	0	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	0.8	3.3	3.4	1.1	2.2	36.0	+32 3	20 5	15	0	3	3	2	2	0	0
Cairo (A)	1.1	3.2	3.5	2.0	2.6	2.5	+ 1.8	1.8	16	1	3	1	0	0	0	0
Fayoum	—	1.5	2.9	2.5	—	0.6	— 0.7	0.6	15	4	1	0	0	0	0	0
Minya (A)	0.3	0.9	2.2	1.9	1.2	tr.	— 0.6	tr.	1,8,15	3	0	0	0	0	0	0
Assyout (A)	0.3	0.7	1.6	1.1	0.8	tr.	0 0	tr.	1,10	2	0	0	0	0	0	0
Luxor (A)	0.3	1.0	1.2	1.4	0.9	0.0	— 0.4	0.0	—	0	0	0	0	0	0	0
Aswan (A)	1.0	1.4	1.4	1.5	1.2	0.0	— tr.	0.0	—	0	0	0	0	0	0	0
Siwa	1.6	1.8	2.5	2.2	1.8	tr.	— 1 8	tr.	14	1	0	0	0	0	0	0
Bahariya	1.2	1.5	2.2	1.9	1.6	tr.	— 0 1	tr.	1,8	2	0	0	0	0	0	0
Farafra	—	1.0	2.0	1.3	—	0.0	— 0.1	0 0	—	0	0	0	0	0	0	0
Dakhla	0.2	0.5	1.3	0.4	0.6	0.0	— 0.1	0.0	—	0	0	0	0	0	0	0
Kharga	0.1	0.8	1.4	0.5	0.7	0.0	— 0.3	0.0	—	0	0	0	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1.2	0.7	1.4	1.8	1.2	1.3	+ 0.9	1.2	10	1	2	1	0	0	0	0
Quseir	0.2	0.9	1.0	0.9	0.7	0.0	— tr.	0.0	—	0	0	0	0	0	0	0

Table A 4. — DAYS OF OCCURRENCE OF MISCELLANEOUS WEATHER PHENOMENA.

MAY — 1967

Station	Precipitation				Frost	Thunderstorm	Mist Vis ≥ 1000 Metres	Fog Vis < 1000 Metres	Haze Vis ≥ 1000 Metres	Thick Haze Vis < 1000 Metres	Dust or Sandstorm Vis ≥ 1000 Metres	Gale	Clear Sky	Cloudy Sky	
	Rain	Snow	Ice. Pellets	Hail											
Sailum	0	0	0	0	0	0	0	0	0	0	2	0	14	2	—
Mersa Matruh (A)	1	0	0	0	0	0	1	0	0	0	1	0	12	2	0
Alexandria (A)	0	0	0	0	0	0	1	0	0	0	0	0	7	0	1
Port Said (A)	1	0	0	0	0	0	0	0	0	0	0	0	14	1	—
Al Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	3	0	0	1	0	4	1	0	0	0	0	0	0	15	1
Cairo (A)	3	0	0	0	0	2	10	1	4	0	3	0	0	13	0
Fayoum	1	0	0	0	0	1	0	0	0	0	2	0	0	—	—
Minya (A)	0	0	0	0	0	2	0	0	4	0	4	0	0	22	0
Assyout (A)	0	0	0	0	0	0	0	0	0	0	1	0	0	27	0
Luxor (A)	0	0	0	0	0	0	9	0	0	9	0	0	0	27	0
Aswan (A)	0	0	0	0	0	1	0	0	2	0	11	1	0	25	0
Siwa	0	0	0	0	0	1	0	0	0	0	1	0	0	19	0
Bahariya	0	0	0	0	0	2	0	0	0	0	0	0	0	19	0
Farafra	0	0	0	0	0	0	9	0	0	1	5	0	0	—	—
Dakhla	0	0	0	0	0	0	0	0	0	0	10	0	0	29	0
Kharga	0	0	0	0	0	0	0	0	0	0	4	0	0	—	—
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	2	0	0	0	0	0	0	0	0	0	1	0	3	24	0
Quseir	0	0	0	0	0	0	0	0	1	0	4	0	0	27	0

Table A 5.—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES
MAY — 1967

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated												
					345	015	045	075	105	135	165	195	225	255	285	315	All directions
					/	/	/	/	/	/	/	/	/	/	/	/	/
Sohum	18	2	0	1-10	45	135	89	69	17	4	2	3	11	36	49	94	554
				11-27	3	42	16	1	0	0	0	3	18	4	34	46	167
				28-47	1	1	0	0	0	0	0	0	0	0	0	1	3
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	49	178	105	70	17	4	2	6	29	40	83	141	724
Mersa Matruh . . (A)	54	0	0	1-10	100	54	24	23	25	17	11	24	20	60	36	65	459
				11-27	81	12	7	5	9	1	7	12	3	4	11	79	231
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	181	66	31	28	34	18	18	36	23	64	47	144	690
Alexandria . . . (A)	12	0	0	1-10	130	57	46	21	35	15	4	11	14	15	63	110	521
				11-27	46	13	7	5	8	0	0	0	1	5	47	79	211
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	176	70	53	26	43	15	4	11	15	20	110	189	732
Port Said . . . (A)	2	2	6	1-10	233	75	31	21	16	3	8	3	24	37	10	71	532
				11-27	88	22	17	7	2	6	0	0	1	13	21	30	207
				28-47	0	0	0	0	0	0	0	0	0	0	0	1	1
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	321	97	48	28	18	9	8	3	25	50	31	102	740
Tanta	56	0	0	1-10	107	17	37	69	19	3	7	14	43	46	105	91	648
				11-27	17	1	2	6	0	0	0	0	0	1	2	11	40
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	121	108	39	75	19	3	7	14	43	47	107	102	688
Cairo (A)	16	4	116	1-10	79	98	44	29	5	5	7	8	16	27	43	74	435
				11-27	31	40	15	23	6	2	2	4	3	12	20	15	173
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	110	138	59	52	11	7	9	12	19	39	63	89	608
Fayoum	17	0	0	1-10	269	231	34	3	2	1	7	6	17	21	33	61	691
				11-27	9	19	1	0	0	0	0	0	2	2	2	1	36
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	278	250	35	3	2	1	7	6	19	23	41	62	727
Minya (A)	7	13	0	1-10	124	35	3	2	7	17	3	3	4	8	20	171	397
				11-27	146	21	2	0	0	5	2	1	3	8	136	326	
				28-47	0	0	0	0	0	0	0	0	0	0	1	1	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	270	57	5	2	7	22	5	4	5	11	23	308	724

Table A 5 (contd.)—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES
MAY — 1967

Station	calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated													All directions
					345	015	045	075	105	135	165	195	225	255	285	315		
					014	044	074	104	134	164	194	224	254	284	314	344		
Asyout (A)	3	3	103	1-10	19	17	13	6	11	15	8	11	37	109	152	143	532	
				11-27	7	6	0	0	0	0	0	0	2	2	20	66	103	
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	26	23	13	6	11	15	8	11	39	102	172	209	635	
Luxor (A)	0	2	0	1-10	73	48	34	29	21	21	82	30	37	81	136	138	730	
				11-27	0	2	0	0	0	0	1	0	1	0	5	2	12	
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	73	50	34	29	21	21	83	30	38	81	141	140	742	
Aswan (A)	1	0	0	1-10	137	131	18	8	6	7	10	10	3	16	34	85	465	
				11-27	148	73	2	0	4	6	3	3	0	3	12	24	278	
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	285	264	20	8	10	13	13	13	3	19	46	109	743	
Sawa	9	7	0	1-10	51	89	83	83	34	30	30	14	24	51	100	56	645	
				11-27	3	10	5	7	5	4	5	1	1	14	22	6	83	
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	54	99	88	96	39	34	35	15	25	65	122	62	728	
Dakhla	5	14	0	1-10	60	41	24	18	14	16	34	32	40	61	10	147	587	
				11-27	62	8	0	6	0	0	0	0	0	0	0	10	58	138
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	122	49	24	18	14	16	34	32	40	61	110	205	725	
Kharga	21	5	0	1-10	95	64	25	4	4	10	8	7	8	15	47	133	490	
				11-27	162	21	0	0	0	0	0	0	1	0	19	95	28	
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	257	85	25	4	4	10	8	7	9	15	66	228	718	
Hurghada	12	2	0	1-10	10	21	31	16	12	18	12	7	13	8	30	54	232	
				11-27	110	76	4	0	0	1	1	1	0	1	74	203	471	
				28-47	2	0	0	0	0	0	0	0	0	0	1	24	27	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	122	97	35	16	12	19	13	8	13	9	105	281	730	
Quseir	0	18	0	1-10	84	50	26	14	12	11	20	6	14	20	54	135	448	
				11-27	193	24	0	0	0	0	0	0	1	0	0	50	268	
				28-47	9	0	0	0	0	0	0	0	0	0	0	1	10	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	286	74	28	14	12	11	20	6	14	21	54	186	726	

Table B 1.—UPPER AIR CLIMATOLOGICAL DATA

MAY — 1967

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mersa Matruh 0000 U.T.	Surface . . .	30	1010m.b.	1015m.b.	1004m.b.	30	17 0	24.2	13.2	30	13.9
	1000 . . .	30	117	154	62	30	17 5	25 1	13.5	30	12.0
	850 . . .	30	1500	153	1455	29	13 1	21.0	7.3	29	-0.4
	700 . . .	30	3102	3159	3036	29	2.9	7.5	-2.6	19	-7.0
	600 . . .	30	4333	4407	4243	30	-5.1	1.2	-10.0	11	-11.5
	500 . . .	30	5740	528	5621	30	-14.9	9.8	-20.9	10	-19.9
	400 . . .	30	7386	7499	7225	30	-27.7	-22.1	-34.9	10	-30.2
	300 . . .	30	9391	9542	9166	30	-43.2	-38.4	-50.7	—	—
	200 . . .	28	12032	1218	11797	28	-56.1	-49.0	-61.8	—	—
	150 . . .	28	13850	14018	13640	28	-59.1	-52.8	-65.7	—	—
	100 . . .	20	16379	16481	16252	29	-63.9	-57.7	-71.5	—	—
	70 . . .	17	18571	18660	18490	17	-63.7	-60.9	-66.5	—	—
	60 . . .	17	19521	19599	19431	17	-62.1	-60.7	-65.0	—	—
	50 . . .	16	20649	20741	20549	16	-60.4	-57.0	-62.7	—	—
	40 . . .	13	22043	22165	21930	13	-58.5	-53.0	-70.0	—	—
	30 . . .	12	23886	2425	23772	12	-53.9	-51.0	-57.0	—	—
	20 . . .	7	265 5	26639	26380	7	-49.2	-46.0	-52.5	—	—
	10 . . .	—	—	—	—	—	—	—	—	—	—
Hilwan 0000 U.T.	Surface . . .	26	996 * m.b.	1000m.b.	989m.b.	26	20 0	31.2	16.8	26	10.1
	1000 . . .	26	102	140	59	—	—	—	—	—	—
	850 . . .	26	1494	1526	1456	26	14 8	23.1	9.5	26	0.1
	700 . . .	26	3108	3165	3011	26	4.9	10.1	-1.6	17	-8.7
	600 . . .	26	4347	4423	4255	26	-2.8	1.5	-10.3	12	-14.3
	500 . . .	26	5765	5844	5649	26	-13.1	8.6	-20.2	8	-20.2
	400 . . .	25	7427	7570	7272	25	-25.7	-21.5	-31.0	9	-32.0
	300 . . .	25	9446	9558	9251	25	-41.0	-33.0	-47.2	3	-43.9
	200 . . .	24	12106	12.85	11873	24	-52.9	-49.6	-61.3	—	—
	150 . . .	24	13923	14117	13725	24	-59.9	-51.0	-67.8	—	—
	100 . . .	23	16418	16581	16278	23	-64.7	-58.9	-72.0	—	—
	70 . . .	20	18594	18740	18470	20	-64.3	-61.4	-69.3	—	—
	60 . . .	18	19542	19675	19399	18	-61.7	-58.4	-65.7	—	—
	50 . . .	18	20677	208.9	20523	18	-59.9	-57.8	-61.7	—	—
	40 . . .	17	22079	22237	21914	17	-56.8	-52.0	-59.4	—	—
	30 . . .	10	23901	24026	23737	15	-53.1	-47.2	-58.5	—	—
	20 . . .	9	26532	26692	2.340	9	-49.8	-44.8	-53.9	—	—
	10 . . .	1	31293	—	—	1	-42.8	—	—	—	—
Awyan 0000 U.T.	Surface . . .	27	986m.b.	988m.b.	983m.b.	27	24 3	30 2	18.8	27	1.2
	1000 . . .	27	69	89	* 4	—	—	—	—	—	—
	850 . . .	27	1494	1518	1466	27	21 3	27 9	15.5	17	-1.1
	700 . . .	27	3.39	3188	3081	27	10 3	15.0	4.6	16	-8.6
	600 . . .	27	4399	4460	4323	27	0.8	4.8	-5.2	20	-12.7
	500 . . .	27	6833	5906	5750	27	-9.4	-4.9	-15.2	9	-18.2
	400 . . .	25	7525	7622	7405	25	-21.0	-17.3	-27.2	6	-29.5
	300 . . .	25	9587	9705	9422	25	-35.8	-31.2	-42.8	2	-41.6
	200 . . .	25	12203	12117	12075	25	-54.6	-49.9	-59.1	—	—
	150 . . .	25	14091	14225	13893	25	-64.0	-58.6	-68.6	—	—
	100 . . .	25	16515	1653	16354	25	-73.1	-67.0	-79.7	—	—
	70 . . .	20	1820	18740	184.0	20	-68.8	-63.6	-76.6	—	—
	60 . . .	20	19523	19628	19396	20	-65.0	-61.7	-69.0	—	—
	50 . . .	20	20689	20862	20522	20	-60.8	-57.9	-64.8	—	—
	40 . . .	18	22077	22222	21925	18	-57.2	-54.0	-60.0	—	—
	30 . . .	18	23917	24080	23753	18	-52.9	-50.4	-58.2	—	—
	20 . . .	15	26550	26754	26393	15	-48.8	-45.1	-54.3	—	—
	10 . . .	2	31225	31230	31220	2	-43.2	-41.3	-45.1	—	—

N = The number of cases the element has been observed during the month.

* The atmospheric pressure corrected to the elevation of the radiosonde station.

Table B 1 (contd.).—UPPER AIR CLIMATOLOGICAL DATA
MAY—1967

Station	Pressure Surface Millibar	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mersa Matruh (A) 1200 U.T.	Surface . . .	28	1011m.b.	1016m.b.	1001m.b.	28	23.8	34.8	21.5	28	15.3
	1000 . . .	28	121	166	37	28	22.4	31.1	19.6	27	14.5
	850 . . .	28	1518	1458	1463	28	15.2	21.9	9.5	25	0.7
	700 . . .	28	3129	3.85	3011	28	4.9	10.3	1.3	18	8.1
	600 . . .	28	4369	4432	4290	28	2.9	2.5	9.4	13	-13.0
	500 . . .	28	5792	5862	569	28	-12.4	-8.1	-15.8	9	-15.9
	400 . . .	27	7449	7542	728	27	-25.4	-18.7	-29.9	5	-31.8
	300 . . .	25	9470	9613	9264	25	40.6	35.4	-45.5	1	-48.0
	200 . . .	19	12116	12305	11953	19	-53.9	-48.6	-58.8	—	—
	150 . . .	14	13961	14092	13811	14	-57.3	-55.4	-66.8	—	—
	100 . . .	13	16497	16593	16416	13	-62.2	-55.2	-67.0	—	—
	70 . . .	10	18712	18800	18660	10	-61.2	-58.8	-65.6	—	—
	60 . . .	10	19675	19750	19614	10	-59.6	-57.0	-62.7	—	—
	50 . . .	8	20824	20945	20765	8	-57.3	-54.4	-63.0	—	—
	40 . . .	5	22275	2336	22200	5	-53.8	-49.0	-63.4	—	—
	30 . . .	4	24122	24250	23960	4	-52.6	-45.3	-65.0	—	—
	20 . . .	3	26874	26933	26707	3	-45.8	-42.6	-48.0	—	—
	10 . . .	—	—	—	—	—	—	—	—	—	—
Helwan 1200 U.T.	Surface . . .	26	995m.b.	999m.b.	9.0m.b.	26	20.9	34.2	24.8	26	7.1
	1000 . . .	26	97	135	52	—	—	—	—	—	—
	850 . . .	26	1508	1538	1465	26	15.8	26.8	9.7	26	-2.0
	700 . . .	26	3126	3180	3050	26	6.2	13.6	0.9	15	-6.9
	600 . . .	26	4372	4454	4263	26	-1.8	3.4	8.2	12	-14.8
	500 . . .	25	5794	5807	5603	25	-11.8	5.6	-18.5	8	-20.2
	400 . . .	25	7463	7590	7303	25	-24.5	-19.8	-29.9	7	-31.1
	300 . . .	25	9497	9655	9293	25	-39.6	-32.7	-48.4	2	-41.8
	200 . . .	24	12173	12350	11935	24	-51.4	-48.7	-61.4	—	—
	150 . . .	24	13998	14158	13775	24	-58.6	-49.1	-65.5	—	—
	100 . . .	20	16506	16640	16317	20	-64.2	-57.7	-70.0	—	—
	70 . . .	18	18683	18790	18500	18	-62.8	-53.7	-63.8	—	—
	60 . . .	18	19610	1970	19452	18	-60.3	-56.4	-62.8	—	—
	50 . . .	16	20769	20850	20517	16	-57.5	-54.4	-60.8	—	—
	40 . . .	12	22213	22333	20982	12	-54.0	-49.8	-58.0	—	—
	30 . . .	8	24071	24217	2370	8	-50.8	-46.9	-56.6	—	—
	20 . . .	3	26830	26888	26739	3	-41.8	-43.0	-46.0	—	—
	10 . . .	—	—	—	—	—	—	—	—	—	—
Aswan 1200 U.T.	Surface . . .	22	986m.b.	*	988m.b.	22	36.4	44.0	32.0	22	3.1
	1000 . . .	22	68	97	28	—	—	—	—	—	—
	850 . . .	22	1508	1532	1481	22	22.9	30.5	17.3	16	-4.0
	700 . . .	21	3166	3214	3097	21	12.0	15.0	6.9	13	-9.8
	600 . . .	21	4433	4486	4341	21	2.8	5.7	1.0	12	-12.4
	500 . . .	21	5879	5944	5769	21	-7.9	-4.7	-12.0	9	-17.3
	400 . . .	19	7567	7618	7441	19	-19.7	-16.8	-24.2	5	-29.4
	300 . . .	19	9612	9745	9476	19	-35.1	-30.7	-40.8	1	-38.8
	200 . . .	19	12355	12490	12146	19	-53.8	-49.4	-58.3	—	—
	150 . . .	19	14167	14311	13970	19	-92.0	-57.7	-67.5	—	—
	100 . . .	19	16623	16735	16484	19	-69.9	-63.8	-75.8	—	—
	70 . . .	19	18762	18870	18630	19	-66.3	-61.8	-70.3	—	—
	60 . . .	17	19702	19781	19572	17	-51.0	-58.2	-65.0	—	—
	50 . . .	17	20848	20935	20714	17	-56.2	-53.8	-63.5	—	—
	40 . . .	11	22310	22333	22222	11	-51.3	-49.4	-55.0	—	—
	30 . . .	11	24200	24230	24086	11	-46.1	-43.5	-47.5	—	—
	20 . . .	6	25350	27042	26897	6	-39.8	-35.0	-42.4	—	—
	10 . . .	—	—	—	—	—	—	—	—	—	—

N = The number of cases the element has been observed during the month.

* The atmospheric pressure corrected to the elevation of the radiosonde stations.

Table B 2.- MEAN AND EXTREME VALUES OF THE FREEZING LEVEL AND THE TROPOPAUSE.
THE HIGHEST WIND SPEED IN THE UPPER AIR

MAY - 1967

Station	Freezing Level								First Tropopause								Highest wind speed											
	Mean			Highest			Lowest		Mean			Highest			Lowest		Altitude (gpm)		Pressure (mb.)		Temperature (°C)		Altitude (gpm)		Pressure (mb.)		Temperature (°C)	
	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Direction (000-360)	Speed in Knots				
0900 U.T.	Mersa Matruh (A)	3549 (30)	663 (31)	-7.6 (16)	4520	588	-	2730	7.8	-	12098 (27)	103 (27)	54.5 (27)	16372	160	69.3	10060	213	-52.7	11210	227	224	134	-				
	Helwan . . .	3857 (26)	628 (26)	-10.0 (61)	4600	584	-	2840	716	-3.7	12988 (22)	181 (22)	61.4 (22)	17300	88	71.0	9730	279	49.6	11140	227	260	140	-				
	Aswan . . . (A)	4553 (27)	592 (27)	-12.3 (17)	5160	545	-	3720	650	-9.7	159.0 (21)	111 (21)	72.7 (21)	17200	89	71.6	13070	172	61.3	12300	199	230	113	-				
1200 U.T.	Mersa Matruh (A)	3921 (28)	637 (28)	-9.4 (14)	4760	576	-	2840	721	-7.8	12337 (14)	199 (14)	58.3 (14)	16595	100	65.8	10240	262	-52.2	9800	-	234	125	-				
	Helwan . . .	4038 (26)	627 (26)	-8.3 (14)	4820	572	-	2920	711	-5.2	13105 (21)	180 (21)	60.5 (21)	17340	89	69.9	10270	260	-54.0	9970	281	240	134	-				
	Aswan . . . (A)	4791 (21)	571 (21)	-12.4 (9)	5280	544	-	450	614	-	15974 (19)	114 (19)	70.0 (19)	17860	82	71.5	14300	146	-67.7	12420	-	250	124	-				

**Table B 3.—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES.
MERSA MATRUH (A) MAY — 1967**

Time	Pressure Surface (Millibar.)	Wind between specified ranges of direction (000 - 360) ^o														Number of Calm winds	Total Number of Observations (TN)	Mean Scalar wind Speed (Knots)												
		345		015		045		075		105		135		165		195		225		255										
		N 014	(ft) m	N 044	(ft) m	N 074	(ft) m	N 104	(ft) m	N 134	(ft) m	N 164	(ft) m	N 194	(ft) m	N 224	(ft) m	N 254	(ft) m	N 284	(ft) m	N 314	(ft) m							
0000 U.T.	Surface	5	7	1	7	1	7	0	—	0	—	1	9	1	3	3	10	2	3	6	2	8	6	30	5					
	1000	7	8	2	6	2	7	0	—	0	—	0	4	6	0	—	0	1	16	8	14	4	14	0	28	10				
	850	4	22	3	13	0	—	0	—	0	—	0	0	—	0	—	1	17	4	16	8	19	8	20	19					
	700	6	22	0	—	0	—	0	—	0	—	0	0	—	1	43	4	26	3	26	8	27	6	23	0					
	600	4	20	0	—	0	—	0	—	0	—	0	—	1	66	3	38	4	20	10	25	6	23	0	28	27				
	500	4	23	0	—	1	11	0	—	0	—	0	—	2	74	2	34	4	25	10	29	5	33	0	28	32				
	400	4	28	1	0	0	—	0	—	1	5	0	0	—	3	43	2	39	4	47	9	33	4	39	0	28	34			
	300	3	34	0	—	0	—	1	11	0	—	1	15	0	—	2	97	2	52	6	49	9	51	3	48	0	27	47		
	200	1	33	0	—	0	—	0	—	0	—	0	—	0	—	1	114	5	76	7	67	5	40	3	43	0	22	60		
	150	1	40	0	—	0	—	0	—	0	—	0	—	0	—	3	36	6	46	4	29	2	33	0	16	41				
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	36	5	23	3	20	0	—	0	12	26				
	70	0	—	0	—	1	8	0	—	1	4	0	—	1	6	0	—	1	4	1	6	1	7	0	—	6				
	60	0	—	0	—	0	—	0	—	1	4	0	—	2	4	1	3	0	—	0	—	1	13	0	—	6				
	50	0	—	1	15	1	4	2	6	0	—	0	—	0	—	0	—	0	—	1	26	0	—	0	5	12				
	40	0	—	0	—	2	12	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	4	9				
	30	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	10	1	3	0	—	1	8	0				
	20	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	7	0	—	0	—	0	1	7				
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
1200 U.T.	Surface	12	11	4	6	0	—	2	18	0	—	0	—	0	—	1	3	1	5	0	—	0	8	15	0	28	12			
	1000	3	14	2	6	1	9	0	—	0	—	0	—	0	—	1	8	0	—	2	10	13	13	2	24	12				
	850	2	9	1	14	1	10	0	—	0	—	0	—	0	—	2	7	3	15	4	13	7	21	5	15	0	25	16		
	700	3	11	0	—	0	—	0	—	0	—	0	—	0	—	1	62	1	14	3	25	7	28	8	16	0	23	22		
	600	1	23	0	—	0	—	0	—	0	—	0	—	0	—	1	50	2	12	5	24	7	25	8	23	0	24	25		
	500	2	23	0	—	0	—	0	—	1	10	0	—	1	12	0	—	1	9	2	47	7	23	9	29	3	30	0	24	27
	400	2	43	0	—	0	—	0	—	1	10	0	—	1	12	0	—	1	70	2	52	7	30	6	32	3	39	0	23	34
	300	2	59	0	—	0	—	0	—	0	—	1	10	0	—	0	—	1	71	3	40	6	44	5	30	3	28	0	21	39
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	75	6	49	4	39	1	34	0	14	51
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	49	5	44	3	25	1	44	0	12	49		
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	17	3	31	2	19	0	—	0	6	24		
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	11	0	—	2	14	1	8	0	—	4	17			
	60	0	—	0	—	0	—	0	—	1	10	1	17	0	—	0	—	0	—	0	—	0	—	2	14					
	50	0	—	0	—	0	—	0	—	2	10	0	—	0	—	0	—	0	—	0	—	0	—	2	10					
	40	1	1	0	—	0	—	1	11	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	6					
	30	1	4	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	9	0	—	2	6					
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					

N = The number of cases the element has been observed during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

Table B 3.(contd.) NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES.

HELWAN -- MAY 1967

Time	Pressure Surface (Millibar)	Wind between specified ranges of direction (000 - 360)°														Number of calm winds	Total Number of Observations (TN)	Mean Scalar wind Speed (knots)										
		345	015	045	075	105	135	165	195	225	255	285	315	/														
		014	044	074	104	134	164	194	224	254	284	314	344	/														
		N (ft) m	N (ft) m	N (ft) m	N (ft) m	N (ft) m	N (ft) m	N (ft) m	N (ft) m	N (ft) m	N (ft) m	N (ft) m	N (ft) m	N (ft) m	N (ft) m	N (ft) m	N (ft) m											
0000 U.T.	Surface	10	7	6	8	3	14	3	12	0	—	0	—	0	—	0	—	3	5	1	26	8						
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—						
	850	2	11	2	14	1	8	0	—	0	—	1	4	0	—	1	15	2	12	3	13	4	14	10	21	0	26	16
	700	2	17	0	—	0	—	6	—	0	—	0	—	0	—	3	19	2	22	8	19	10	22	1	22	0	26	20
	600	0	—	0	—	0	—	6	—	0	—	0	—	1	15	4	29	4	11	10	23	4	19	3	36	0	26	23
	500	0	1	5	0	—	0	—	0	—	0	—	1	43	2	3	9	27	7	30	4	38	2	22	0	26	23	
	400	2	38	0	—	0	—	6	—	0	—	2	25	0	—	9	43	9	35	1	47	1	20	0	24	37		
	300	1	100	0	—	0	—	0	—	0	—	0	—	0	—	2	82	8	45	11	40	1	23	0	23	47		
	200	0	—	0	—	0	—	6	—	0	—	0	—	1	80	6	44	8	42	1	123	0	—	0	6	50		
	150	0	—	0	—	0	—	6	—	0	—	0	—	1	49	3	40	8	62	0	—	0	—	0	12	55		
	100	0	—	0	—	0	—	6	—	0	—	0	—	0	—	1	27	2	36	0	—	0	—	0	3	53		
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
1200 U.T.	Surface	7	11	3	11	0	—	0	—	0	—	1	6	0	—	0	14	3	12	4	9	7	10	0	26	10		
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	850	7	13	2	9	0	—	2	4	1	6	0	—	0	—	0	7	14	1	13	6	12	0	26	12			
	700	2	18	0	—	0	—	0	—	0	—	0	—	0	—	2	18	6	25	5	19	5	26	6	11	0	26	20
	600	1	34	0	—	0	—	0	—	0	—	1	30	3	31	7	28	6	17	5	23	3	25	0	26	25		
	500	0	—	0	—	0	—	0	—	1	13	0	—	4	20	3	34	8	28	4	23	4	47	0	24	29		
	400	0	—	0	—	0	—	0	—	1	10	0	—	1	16	2	40	7	40	8	30	2	36	2	35	0	23	33
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	40	7	60	9	44	1	58	3	24	0	22	46
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	91	2	47	12	58	1	27	0	—	0	16	57
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	65	6	47	2	34	0	—	0	—	0	11	53
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	43	3	20	1	22	0	—	0	—	0	5	25
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

N — The number of cases the wind has been observed during the month.

TN — The total number of cases the wind has been observed for all directions during the month.

Table B 3.(contd) NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES.
ASWAN (A) — MAY 1967

Time	Pressure Surface (Millibar.)	Wind between specified ranges of direction (000—360) ^o														Number of Calm winds	Total Number of Observations (TN)	Mean Scalar wind Speed (Knts)								
		315 /	015 014	045 044	075 104	105 134	135 164	165 194	195 224	225 254	255 284	285 314	315 344													
		N m	N m	N m	N m	N m	N m	N m	N m	N m	N m	N m	N m	N m												
0900 U.T.	Surface	15	8	5	9	1	6	1	1	0	—	0	—	1	2	0	—	1	4	1	15	2	27	7		
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	850	7	13	3	11	1	8	3	9	1	7	0	—	0	—	1	4	2	14	4	17	5	16	0		
	700	2	36	0	—	0	—	0	—	0	—	0	—	0	—	6	19	1	15	3	19	0	27	20		
	600	1	26	0	—	0	—	0	—	0	—	0	—	0	—	5	29	4	19	1	30	0	26	26		
	500	0	—	0	—	0	—	0	—	0	—	0	—	2	19	12	30	6	29	4	31	2	28	0		
	400	0	—	0	—	0	—	0	—	0	—	0	—	1	26	3	39	9	36	7	35	4	32	1		
	300	0	—	0	—	0	—	0	—	0	—	0	—	4	28	10	48	8	40	1	65	2	31	0		
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	15	57	6	58	3	37	1	61	0		
	150	0	—	0	—	0	—	0	—	0	—	0	—	3	37	12	52	5	48	2	54	0	—	0		
	100	0	—	0	—	0	—	0	—	0	—	0	—	4	19	9	33	5	31	0	—	0	—	0		
	70	2	10	3	8	2	12	1	10	2	8	2	8	0	—	1	6	0	—	0	—	1	23	0		
	60	1	2	0	—	2	6	5	11	4	6	2	7	0	—	0	—	0	—	0	—	0	14	8		
	50	0	—	0	—	3	16	8	11	2	12	0	—	0	—	0	—	0	—	0	—	0	13	12		
	40	0	—	0	—	2	1	8	15	2	12	0	—	0	—	0	—	0	—	0	—	0	12	14		
	30	0	—	1	12	1	16	9	15	0	—	0	—	0	—	0	—	0	—	0	—	0	11	15		
	20	0	—	0	—	0	—	3	12	0	—	0	—	0	—	0	—	0	—	0	—	0	3	12		
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
1200 U.T.	Surface	8	13	2	10	1	12	0	—	1	18	2	10	0	—	0	—	0	—	2	12	4	9	2	22	11
	1000	—	—	—	—	2	8	1	3	1	6	0	—	1	3	1	8	1	4	3	12	7	12	2	13	0
	850	3	13	0	—	2	5	1	3	1	6	0	—	1	3	1	8	1	4	3	12	7	12	2	22	10
	700	0	—	1	21	0	—	0	—	0	—	1	18	0	—	5	15	7	24	4	16	2	13	1	21	18
	600	0	—	1	22	0	—	0	—	0	—	0	—	0	—	4	31	11	24	3	23	1	16	1	32	0
	500	1	10	0	—	1	40	0	—	0	—	0	—	1	18	2	14	13	3	1	24	2	40	0	—	0
	400	0	—	0	—	1	35	0	—	0	—	0	—	0	—	3	24	9	37	6	29	0	—	0	19	33
	300	0	—	0	—	1	32	1	33	0	—	0	—	0	—	1	18	11	45	3	48	2	38	0	—	0
	200	0	—	0	—	0	—	1	47	0	—	0	—	0	—	0	—	9	53	6	52	3	46	0	—	0
	150	0	—	0	—	0	—	1	51	0	—	0	—	0	—	2	46	8	44	6	37	2	36	0	—	0
	100	0	—	0	—	0	—	1	22	0	—	0	—	2	19	4	26	5	21	6	20	0	—	0	18	21
	70	1	17	1	9	1	10	5	14	4	12	1	9	2	10	0	—	0	—	1	1	0	—	0	16	12
	60	0	—	0	—	0	—	6	10	5	15	2	7	1	10	0	—	0	—	0	—	0	—	0	14	11
	50	0	—	0	—	1	10	6	15	6	14	0	—	0	—	0	—	0	—	0	—	0	—	0	13	14
	40	0	—	0	—	0	—	3	17	5	11	1	14	0	—	0	—	0	—	0	—	0	—	0	9	13
	30	0	—	0	—	2	17	2	13	2	14	0	—	0	—	0	—	0	—	0	—	0	—	0	6	16
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the element has been observed during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

REVIEW OF AGRO-METEOROLOGICAL STATIONS

EL KASR—MAY 1967

This month was slightly colder and drier than normal. The mean daily air temperature at 2metres above ground was 0.2°C below normal and the total amount of rainfall was 0.8 mm below normal.

This month was characterized by two intense heat waves in the periods 4th—5th and 18th—19th with peaks on 4th and 19th respectively. The 2nd heat wave was the most excessive and was associated with the highest maximum air temperature and the lowest value of relative humidity for the month on 19th.

The extreme maximum soil temperatures for all depths between 2 and 100 cm were lower than corresponding values of last May, by values ranging between 5.3°C at 2cm depth and 0.1°C at 100 depth. The extreme minimum soil temperatures at depths between 2 and 20 cm were higher than corresponding values of May 1966, by values ranging between 9.3°C at 2 cm depth and 0.7°C at 20 cm depth; while for 50 cm depth the extreme minimum was 0.7°C lower than corresponding value of May 66 and the value at 100 cm was equal to the corresponding value of last May.

Mean daily Pan evaporation was 0.07 mm higher than corresponding value of last May. Total actual duration of bright sunshine was 12.3 hours higher than corresponding value of May 1966.

TAHRIR—MAY 1967

Compared with May 1966, this month was cold and more humid. Mean daily air temperature at 2 metres above ground was 0.9°C lower, while mean daily relative humidity was 8% higher and total amount of rainfall was 46.5 mm higher than the corresponding values of last May.

This month was characterized by a heat wave on 19th & 20th, and a warm spell on 5th. The highest value of maximum air temperature of the month occurred on 20. The month was also characterized by two intense cold waves in the periods 1st-4th, 10th-17th and a moderate one in the period 23rd-31st with peaks on 3rd, 12th and 24th respectively.

The extreme maximum soil temperatures at all depths were lower than corresponding values of last May, by values ranging between 6.0°C at 10 cm depth and 0.1°C at 100 cm depth. The extreme minimum soil temperatures at depth 2 and 5 cm were 6.0°C and 2.4°C respectively higher than corresponding values of May 1966, while for depths between 10cm-100 cm the values were lower than corresponding values of last May by values ranging between 2.9°C at 20 cm depth and 0.8°C at 10 cm depth.

Mean daily pan evaporation was 0.09 mm lower than corresponding value of last May. Total actual duration of bright sunshine was 14.7 hours lower than corresponding value of May 1966.

BAHTIM—MAY 1967

This month was colder than normal. Maximum air temperatures at 1.5 m above ground all days of the month were colder than normal except the 5th,-19th and 20th. On 20th the highest maximum air temperature and the lowest value of relative humidity occurred.

GIZA MAY 1967

This month was colder and more humid than normal. The mean daily air temperature at 2 metres above ground was 1.0°C below normal while mean daily relative humidity was 5% above normal and total rainfall was 5.8 mm above normal.

The month was characterized by a heat wave on 19th&20th and a warm spell on 5th. The highest value of maximum air temperature of the month and the lowest value of relative humidity occurred on 20th. The month was also characterized by three intense cold waves in the periods 1st—4th, 10—17th and 23rd—31st with peaks on 3rd, 12th and 24th respectively.

The extreme maximum soil temperatures for all depths between 2 and 100 cm in the dry field were lower than corresponding values of last May, by values ranging between 4.0°C at 5 cm depth and 0.5°C at 100 cm depth. The extreme minimum soil temperatures for depths 2&5 cm were 2.9°C & 1.1°C respectively higher than the corresponding values of May 1966, while for depths between 10 and 100 cm the values were lower than corresponding values of last May, by values ranging between 1.8°C at 20cm depth and 0.3°C at 100 cm depth.

Mean daily Pan evaporation was 0.02 mm lower than corresponding value of last May. Mean daily potential evapo-transpiration was 0.6 mm higher than corresponding value of May 1966. Total actual duration of bright sunshine was 7.0 hours lower than corresponding value of last May.

KHARGA—MAY 1967

This month was colder and drier than normal. The mean daily air temperature at 2 metres above ground was 0.4°C below normal and the total amount of rainfall was 0.2 mm below normal.

This month was characterized by two heat waves in the periods 5th—8th and 20th—22nd with peaks on 7th and 20th. The maximum air temperature on the 20th was only slightly higher than on the 7th. The month was also characterized by three cold waves in the periods 3rd—4th, 12th—18th and 23rd—31st with peaks on 3rd, 16th and 30th respectively.

The extreme maximum soil temperatures at 2 and 5 cm were 1.0°C and 0.4°C respectively higher than corresponding values of last May, while the value at 10 cm was equal to the corresponding value of May 66, and for depths between 20, 50 & 100cm the values were 1.6°C , 1.7°C and 0.6°C respectively lower than corresponding values of last May. The extreme minimum soil temperatures at 2 cm depth and at depths between 20 and 100 cm were lower than corresponding values of last May by values ranging between 1.2°C at 50 cm depth and 0.3°C at 20 cm depth, while at 5 and 10 cm depths the values were 0.4°C higher than corresponding values of last May.

Mean daily evaporation was 2.77 mm lower than corresponding value of May 66. Total actual duration of bright sunshine was 62.8 hours higher than corresponding value of last May.

**Table C 1.—AIR TEMPERATURE AT 2 METRES ABOVE GROUND
MAY — 1967**

STATION	Air Temperature (°C)					Mean Duration in hours of daily air temperature above the following values											
	Mean Max.	Mean Min.	Mean of the day	Night time mean	Day time mean	-5°C	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C	
El Kast	24.6	14.3	19.8	17.3	20.7	24.0	24.0	24.0	24.0	21.5	11.6	1.2	0.3	0.1	0.0	0.0	
Tahrir	29.9	15.9	22.1	18.5	23.4	24.0	24.0	24.0	24.0	22.9	13.9	6.9	1.3	0.0	0.0	0.0	
Bahtim	30.2	13.3	21.5	16.9	23.2	24.0	24.0	24.0	23.7	20.6	13.1	7.6	1.8	0.2	0.0	0.0	
Giza	29.9	16.1	22.9	19.8	24.1	24.0	24.0	24.0	24.0	23.5	15.9	8.5	1.4	0.2	0.0	0.0	
Kharga	36.2	20.5	28.7	25.2	30.0	24.0	24.0	24.0	24.0	22.9	17.1	9.7	3.0	0.4	0.0	0.0	

**Table C 2.—ABSOLUTE VALUES OF AIR TEMPERATURE AT 2 METRES ABOVE GROUND,
ABSOLUTE MINIMUM AIR TEMPERATURE AT 5cms ABOVE GROUND OVER
DIFFERENT FIELDS.**

MAY — 1967

STATION	Max. Temp. at 2 metres (°C)				Min. Temp. at 2 metres (°C)				Min. Temp. at 5 cms. above (°C)			
	Highest		Lowest		Highest		Lowest		Dry soil		Grass	
	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date
El Kast	35.9	19	20.4	1	18.5	19	10.6	3	8.1	3	—	—
Tahrir	35.8	20	24.7	12	19.9	21	11.0	4	8.8	4	—	—
Bahtim	38.6	20	24.7	3	17.6	21	8.9	4	4.9	13	—	—
Giza	39.6	20	24.8	12	19.8	21	13.4	4	10.2	18	9.2	18
Kharga	42.8	20	31.0	3	26.6	8	15.6	13	12.2	13	—	—

Table C 3.—(SOLAR+SKY) RADIATION, DURATION OF BRIGHT SUNSHINE, RELATIVE HUMIDITY, VAPOUR PRESSURE AT 2 METRES ABOVE GROUND, EVAPORATION & RAINFALL

MAY — 1967

STATION	(Solar + Sky) Radiation fm. cal/cm ²	Duration of Bright Sunshine (hours)			Relative Humidity			Vapour pressure (mms)				Evaporation (mms)		Rainfall (mms)					
		Total monthly	Actual monthly	Total Possible monthly	Mean of day	1200 U.T.	Lowest	Date	Mean of day	1200 U.T.	Highest	Date	Lowest	Date	Piche	Pan class A	Total Amount Monthly	Max. Fall in one day	Date
El Kast	545.9	343.8	423.6	81	7	64	10	19	12.4	3.4	16.6	21	2.9	19	6.2	8.81	2.8	2.8	15
Tahrir	624.2	323.0	424.2	73	65	40	19	18	12.3	11.3	16.0	13	5.7	18	8.6	9.75	46.5	24.9	12
Bahtim	---	321.0	422.9	76	61	35	15	20	10.9	10.3	16.9	17	5.8	19	9.6	9.54	57.7	43.3	17
Giza	613.9	317.9	422.9	75	56	34	13	20	11.0	9.8	15.1	16	5.1	19	10.5	11.35	7.4	4.2	15
Kharga	571.0	357.1	413.4	86	23	16	8	1	6.5	6.5	11.9	23	3.3	19	25.9	18.87	0.0	0.0	0

**Table C 4.—EXTREME SOIL TEMPERATURE AT DIFFERENT DEPTHS (cms)
IN DIFFERENT FIELDS**

MAY — 1967

STATION	Highest (H) Lowest (L)	Extreme soil temperature (°C) in dry field at different depths (cms.)								Extreme soil temperature (°C) in grass field at different depths (cms.)							
		2	5	10	20	50	100	200	300	2	5	10	20	50	100	200	300
El Kasr	H	89.7	36.0	30.7	26.0	24.2	22.7	21.4	—	—	—	—	—	—	—	—	—
	L	20.3	18.2	18.2	20.6	20.8	20.8	20.0	—	—	—	—	—	—	—	—	—
Tahrir	H	48.6	42.7	36.2	32.5	28.9	27.1	24.5	23.4	—	—	—	—	—	—	—	—
	L	20.4	20.5	20.4	21.7	23.8	23.9	22.5	22.0	—	—	—	—	—	—	—	—
Bahsim	H	45.3	36.4	33.1	28.0	25.8	24.0	22.1	—	—	—	—	—	—	—	—	—
	L	20.3	20.7	21.2	23.8	23.2	21.8	20.3	—	—	—	—	—	—	—	—	—
Giza	H	54.8	41.6	33.4	30.4	28.4	26.5	24.0	23.6	—	—	31.7	28.0	26.4	24.4	23.4	—
	L	18.5	21.4	23.4	25.4	25.7	24.2	22.6	23.1	—	—	17.7	17.9	18.5	20.0	20.6	—
Kharga	H	55.2	49.4	40.8	34.4	31.4	29.4	27.5	26.9	—	—	—	—	—	—	—	—
	L	17.9	21.2	25.6	28.0	28.2	27.0	25.8	26.2	—	—	—	—	—	—	—	—

Table C 5.—SURFACE WIND

MAY — 1967

STATION	Wind Speed m/sec at $\frac{1}{2}$ metres			Days with surface wind speed at 10 metres							Max. Gust (knots at 10 metres)	
	Mean of the day	Night time mean	Day time mean	≥ 10 knots	≥ 15 knots	≥ 20 knots	≥ 25 knots	≥ 30 knots	≥ 35 knots	≥ 40 knots	value	Date
El Kasr	3.5	2.5	4.4	—	—	—	—	—	—	—	—	—
Tahrir	2.3	1.6	3.1	29	22	5	2	0	0	0	34	5
Bahsim	2.5	2.0	3.1	—	—	—	—	—	—	—	—	—
Giza	2.5	2.0	2.9	30	12	3	0	0	0	0	29	1,21
Kharga	4.1	3.1	5.0	30	22	13	4	0	0	0	37	26

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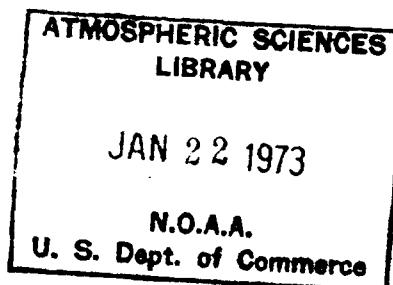
THE ARAB REPUBLIC OF EGYPT

MONTHLY WEATHER REPORT

VOLUME 10

NUMBER 6

JUNE, 1967



U.D.C. 551. 506.1 (62)

METEOROLOGICAL DEPARTMENT
CAIRO

PUBLICATIONS OF THE METEOROLOGICAL DEPARTMENT OF THE ARAB REPUBLIC OF EGYPT — CAIRO

In fulfilment of its duties, the Meteorological Department of Egypt issues several reports and publications on weather, climate and agrometeorology. The principal publications are described on this page.

Orders for publications should be addressed to :
"The Director General, Meteorological Department, Kubri-el-Qubbeh — CAIRO".

THE DAILY WEATHER REPORT

This report is issued daily by the Meteorological Department since the year 1901. It includes surface and upper air observations carried out by the relevant networks of the Republic at the principal hours of observations.

As from January 1968 this report was revised to include a condensed representative selection of surface and upper air observations besides the 1200 U.T. surface & 500 mb charts.

THE MONTHLY WEATHER REPORT

First issued in 1909, the Monthly Weather Report served to give a brief summary of the weather conditions that prevailed over Egypt during the month, with a table showing the mean values for few meteorological elements and their deviations from the normal values. From 1954 to 1957 this report was in a rapid state of development and extension resulting into a voluminous report on January 1958 giving surface, upper air, and agro-meteorological data for Egypt.

As from January 1964, the Monthly Weather Report was pressed to give climatological data for a representative selection of synoptic stations.

THE AGRO-METEOROLOGICAL ABRIDGED MONTHLY REPORT

Gives a review of weather experienced in the agro-meteorological stations of Egypt as well as monthly values of certain elements.

THE ANNUAL REPORT

This report gives annual values and statistics for the various meteorological elements, together with a summary of the weather conditions that prevailed during all months of the year.

CLIMATOLOGICAL NORMALS FOR EGYPT

A voluminous edition was issued in March 1968 which brings normals and mean values up till 1960.

METEOROLOGICAL RESEARCH BULLETIN

First issued in January 1969 on a bi-annual basis. It includes research works carried out by members of staff of "The Meteorological Institute for Research and Training" and the Operational Divisions of Meteorological Department.

TECHNICAL NOTES

As from October 1970, the Meteorological Department started to issue a new series of publications in the form of Technical Notes (non periodical) on subjects related to studies and applications of meteorology in different fields for the benefit of personnel working in these fields.

The first Technical Note I was issued in October 1970 on : Sandstorms & Duststorms in Egypt.



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METEOROLOGICAL DEPARTMENT
CAIRO

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GENERAL SUMMARY OF WEATHER CONDITIONS

JUNE 1967

Generally mild summer weather in the northern parts, hot in the central parts and excessively hot in the southern parts; intervened with three variant khamsin heat waves. Frequent rising sand over scattered parts in Upper Egypt and Western Desert.

GENERAL DESCRIPTION OF WEATHER

This month was generally of the normal summer type of June, and was intervened with three khamsin heat waves. The first khamsin wave was weak and of short duration, while the other two waves were pronounced round the periods (8th-14th) & (18th-21st).

More over this month was outstandingly dusty for many days in scattered parts in Upper Egypt & the Western Desert districts.

PRESSURE DISTRIBUTION

The most outstanding features of pressure distribution over the surface maps during this month were :

- High pressure extending from the Atlantic southeastwards to the Mediterranean basin.
- Deep low pressure systems through North Europe and secondaries through central Europe.
- Khamsin secondaries passing south of the coast of North Africa.
- Complex monsoon low pressure system over Sudan, Arabia & the Arabian Gulf.

The barometric pressure in Egypt experienced six falls round the periods : (1st-2nd), (5th-7th), (9th-12th), (17th-19th), (20th-21st) & (27th-30th) respectively.

The pressure fall during the first & second periods was due to the north-east elongation of the Sudan trough towards North Arabia & Syria which was favoured by the transit of secondary depressions through or north of the Black Sea area.

The pressure fall during the third, fourth and fifth periods were caused by rather shallow khamsin secondaries, which originated over North Algiers, then proceeded south of the coast of North Africa and traversed north of Egypt on the 13th, 19th & 21st respectively.

The last pressure fall during this month occurred as a result of the deepening & north-westward elongation of the thermal trough over Arabia through East Mediterranean. During the rest periods of the month, high pressure established over the Mediterranean & parts of NE Africa and the barometric pressure over Egypt experienced consecutive rises.

The important features of pressure distribution over the 700, 500 mb upper charts during this month were :

- Deep upper low pressure systems over North Atlantic and North Urasia.
- Secondary upper lows (or troughs) through the middle latitudes between 30° & 45°N, passing through East Mediterranean & Egypt on the 3rd, 6th, 17th & 25th.
- High pressure system over the subtropical latitudes.

SURFACE WIND

Light to moderate N/NW & NE winds prevailed generally during this month in most parts of the Republic.

Winds became fresh to strong during many days of the month and mainly day-time intervals in scattered parts in the western parts of the Mediterranean coast, Upper Egypt, Western Desert & Red Sea areas.

Calms were frequent during night & early morning intervals in scattered localities.

Gales were reported at : Hurghada on the 24th.

TEMPERATURE

Apart from the second decade, maximum temperature was rather normal in the northern parts and slightly below normal elsewhere in most of the 1st & 3rd decades.

Two prevailing excessive heat waves were experienced on the other hand during most of the 2nd decade.

Maximum air temperature values ranged in general between 25°C & 30°C in the northern parts, between 32°C & 38°C in the central parts and between 38°C & 43°C in the southern parts.

The absolute maximum temperature was 48.1°C at Dakhla on the 21st.

Minimum air temperature showed less variability than maximum temperature and oscillated round normal to a moderate extent (1°C-4°C) during the month. Its values ranged generally between 15°C & 21°C in the northern parts and between 17°C & 24°C in the central and southern parts.

The absolute minimum temperature was 11.2°C at Borg El Arab on the 3rd.

PRECIPITATION

This month was rainless.

Cairo, November 1971

M. F. TAHA
Under Secretary of State
Director General
Meteorological Department

Table A 1.— MONTHLY VALUES OF THE ATMOSPHERIC PRESSURE, AIR TEMPERATURE,
RELATIVE HUMIDITY, BRIGHT SUNSHINE DURATION & PICHE EVAPORATION

JUNE — 1967

STATION	Atmospheric Pressure (mbs) M.S.L		Air Temperature °C								Relative Humidity %		Bright Sunshine Duration (Hours)			Piche Evaporation mms. Mean	
			Maximum		Minimum		A+B 2	Dry Bulb		Wet Bulb				Total	Actual	Total Possible	
	Mean	D.F. Normal or Average	(A) Mean	D.F. Normal or Average	(B) Mean	D.F. Normal or Average		Mean	D.F. Normal or Average	Mean	D.F. Normal or Average	Mean	D.F. Normal or Average	Total	Actual	Total Possible	
Sallum	1013.6	+0.9	30.4	+0.9	19.3	+0.5	24.8	24.2	-0.5	19.2	-0.5	60	-1	—	—	—	9.8
Mersa Matruh. (A)	1014.0	+1.4	28.7	+0.7	18.1	-0.1	23.8	23.2	-0.1	18.8	-0.8	64	-5	—	—	—	8.9
Alexandria . . . (A)	1013.4	+1.7	30.3	+1.9	19.6	-0.6	25.0	24.4	+0.2	19.9	-0.6	64	-7	366.5	424.1	86	6.6
Port Said . . . (A)	1012.1	+1.2	28.0	-0.5	21.6	-0.8	24.8	24.5	-0.5	20.5	-0.9	68	-3	371.0	424.1	87	6.6
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	1012.1	+0.3	34.1	+0.1	18.0	+0.6	26.0	25.6	-0.3	18.7	-0.9	49	-4	(343.1)	(388.4)	(88)	9.2
Cairo (A)	1012.2	+1.2	—	—	—	—	—	26.7	-0.3	19.3	-0.3	47	-1	—	—	—	—
Fayoum.	1012.0	+2.2	36.5	+0.5	19.2	-0.7	27.8	27.8	-1.1	19.1	-0.4	40	+3	—	—	—	17.2
Minya (A)	1011.0	+1.3	37.1	+0.7	19.0	0.0	28.0	28.2	+0.4	18.1	-0.9	33	-7	363.4	416.1	87	17.0
Assyout. . . . (A)	1010.1	+1.2	36.6	-1.1	21.2	-0.4	28.6	28.9	-1.1	19.2	+1.1	36	+10	—	—	—	20.1
Luxor (A)	1008.1	+1.4	41.2	+0.2	22.3	-0.3	31.8	32.3	-0.3	18.4	-0.9	20	-3	—	—	—	15.7
Aswan (A)	1007.3	+1.2	41.4	-0.8	22.7	-1.5	32.0	32.8	-1.1	16.6	-0.9	11	-1	—	—	—	—
Siwa	1012.7	-0.9	37.6	-0.7	20.0	+0.6	28.8	29.1	-0.2	17.8	-0.5	27	-3	—	—	—	18.3
Bahariya	1012.1	+2.2	37.3	+0.8	20.6	-1.1	29.0	29.3	+0.1	17.8	-0.6	27	-3	—	—	—	18.8
Farafra	1012.8	+1.3	36.8	-0.9	20.1	-0.1	28.4	29.0	-0.5	17.9	+1.0	28	+6	—	—	—	19.5
Dakhla	1011.1	+2.3	39.1	+0.6	21.8	-0.7	30.0	30.6	-0.5	17.1	-0.1	19	+1	—	—	—	—
Kharga	1009.6	+1.8	40.0	+0.8	24.7	+1.5	32.4	32.5	0.0	17.1	-0.9	19	-1	370.2	409.8	90	22.1
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1008.3	+1.5	32.9	+1.0	22.7	-0.9	27.8	28.2	-0.4	18.9	-1.5	37	-7	—	—	—	19.8
Quseir	1008.8	+1.7	31.2	-1.2	24.3	-1.2	27.8	27.8	-1.4	19.6	-1.2	42	-2	—	—	—	28.1

Note. = Actual number of Sunshine records was 28 days only at Tanta

Table A 2 — MAXIMUM AND MINIMUM AIR TEMPERATURE

JUNE — 1967

Station	Maximum Temperature °C								Grass Min-Temp.		Minimum Temperature °C								
	Highest	Date	Lowest	Date	No. of Days with Max-Temp.					Mean	Dev. From Normal	Highest	Date	Lowest	Date	No. of Days with Min. Temp.			
					>25	>30	>35	>40	>45							<10	<5	<0	<-5
Sallum	43.6	12	24.6	3	29	13	3	1	0	19.6	—	23.0	19	16.8	8	0	0	0	0
Mersa Matruh (A)	38.3	21	24.0	5	28	6	1	0	0	—	—	22.0	21	12.0	2	0	0	0	0
Alexandria . (A)	44.6	21	26.5	4	30	8	4	1	0	—	—	22.2	29	16.1	6	0	0	0	0
Port Said . (A)	39.8	21	24.3	7	26	4	1	0	0	22.0	—	23.8	14	19.6	9	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	44.4	21	29.0	7	30	28	9	1	0	—	—	22.2	21	15.3	9	0	0	0	0
Cairo . . . (A)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fayoum	45.0	13	30.9	7	30	30	19	5	0	17.2	—	22.9	22	16.4	6.9	0	0	0	0
Minya . . . (A)	46.3	13	31.3	7	30	30	18	6	1	17.0	—	24.1	22	16.1	2	0	0	0	0
Assyout . . . (A)	46.0	21	32.2	24	30	30	21	9	1	20.1	—	26.0	22	18.3	27	0	0	0	0
Luxor . . . (A)	46.4	22	36.0	8	30	30	19	3	15.7	—	—	26.4	21	18.4	1	0	0	0	0
Aswan . . . (A)	46.5	23	36.9	8	30	30	18	4	—	—	—	28.3	15	18.2	1	0	0	0	0
Siwa	46.5	12	32.0	7	30	30	19	8	2	18.3	—	26.9	19	15.9	1	0	0	0	0
Bahariya	46.2	21	31.3	7	30	30	19	7	2	18.8	—	26.5	12	16.9	8	0	0	0	0
Farafra	47.2	21	31.9	25	30	30	21	6	2	19.5	—	26.0	13	16.1	5	0	0	0	0
Dakhla	48.1	21	33.4	8	30	30	27	10	3	—	—	30.9	14	14.3	2	0	0	0	0
Kharga	47.4	22	34.4	8	30	30	29	12	4	22.1	—	31.7	14	19.4	1	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	40.7	13	27.2	8	30	29	6	1	0	19.8	—	26.1	15	19.6	8	0	0	0	0
Quseir	36.7	22	27.3	8	30	19	2	0	0	23.1	—	27.0	21	21.2	9	0	0	0	0

Table A 3.—SKY COVER AND RAINFALL.

JUNE — 1967

Station	Mean Sky Cover Oct.					Rainfall mms.										
	00 U.T.	06 U.T.	12 U.T.	18 U.T.	Daily Mean	Total Amount	D. From Normal	Max. Fall in one day		Number of Days with Amount of Rain						
	Amount	Date	<0.1	≥0.1	≥1.0	≥5.0	≥10	≥25	≥50							
Sallum	1.3	1.1	0.9	0.9	1.1	0.0	—0.1	0.0	—	0	0	0	0	0	0	0
Mersa Matruh . . (A)	0.6	2.1	1.0	0.8	1.4	0.0	—0.2	0.0	—	0	0	0	0	0	0	0
Alexandria . . . (A)	1.2	1.4	1.4	1.3	1.3	0.0	—Tr.	0.0	—	0	0	0	0	0	0	0
Port Said . . . (A)	—	1.0	0.4	0.1	—	0.0	0.0	0.0	—	0	0	0	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	0	0	0	0
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	0.0	1.3	0.6	0.0	0.4	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Cairo (A)	1.9	3.0	1.3	0.7	1.6	—	—	—	—	—	—	—	—	—	—	—
Fayoum	—	1.4	0.5	0.5	—	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Minya	0.1	0.7	0.7	0.3	0.4	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Assyout (A)	0.5	0.5	0.3	0.3	0.3	0.0	—Tr.	0.0	—	0	0	0	0	0	0	0
Luxor (A)	0.1	0.4	0.3	0.3	0.3	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Aswan (A)	0.2	0.4	0.3	0.6	0.4	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Siwa	0.3	0.1	0.4	0.4	0.2	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Bahariya	0.1	0.7	0.3	0.2	0.4	0.0	—0.2	0.0	—	0	0	0	0	0	0	0
Farafra	—	0.4	0.5	0.2	—	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Dakhla	0.2	0.3	0.3	0.4	0.2	0.0	—Tr.	0.0	—	0	0	0	0	0	0	0
Kharga	0.1	0.4	0.2	0.1	0.2	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Tcr.	—	—	—	—	—	—	—Tr.	0.0	—	—	—	—	—	—	—	—
Hurghada	0.3	0.5	0.3	0.4	0.3	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Quseir	0.1	0.1	0.2	0.3	0.2	0.0	—Tr.	0.0	—	0	0	0	0	0	0	0

Table A 4. —DAYS OF OCCURRENCE OF MISCELLANEOUS WEATHER PHENOMENA.

JUNE — 1967

Station	Precipitation				Frost	Thunderstorm	Mist Vis ≥ 1000 metres	Fog Vis < 1000 Metres	Haze Vis ≥ 1000 Metres	Thick Haze Vis < 1000 Metres	Dust or Sandrising Vis ≥ 1000 Metres	Dust or Sandstorm Vis < 1000 Metres	Gale	Clear Sky	Cloudy Sky	
	Rain	Snow	Ice. Pellets	Hail												
Sallum	0	0	0	0	0	0	0	0	0	0	0	2	0	0	23	0
Mersa Matruh . . . (A)	0	0	0	0	0	0	0	0	0	0	0	0	1	0	26	0
Alexandria (A)	0	0	0	0	0	0	0	0	1	0	0	0	1	0	23	0
Port Said (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	—	—
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	0	0	0	0	0	0	1	1	0	0	0	0	0	0	30	0
Cairo (A)	0	0	0	0	0	0	8	0	1	0	0	0	1	0	—	—
Fayoum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	—	—
Minya (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27	0
Assyout (A)	0	0	0	0	0	0	0	0	4	0	0	0	0	0	28	0
Luxor (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0
Aswan (A)	0	0	0	0	0	0	0	0	0	0	0	11	0	0	27	0
Siwa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29	0
Bahariya	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	0
Farafra	0	0	0	0	0	0	0	0	1	0	0	0	0	0	—	0
Dakhla	0	0	0	0	0	0	0	0	7	0	0	0	0	0	29	0
Kharga	0	0	0	0	0	0	0	0	0	0	0	0	0	0	—	0
Tor	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghda	0	0	0	0	0	0	0	0	0	0	0	0	0	1	28	0
Quseir	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0

Table A 5.—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES
JUNE — 1967

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated												
					345	015	045	075	105	135	165	195	225	255	285	315	All directions
					/	/	/	/	/	/	/	/	/	/	/	/	/
Sallum	47	33	0	1—10	46	115	105	64	30	5	4	8	12	14	39	88	530
				11—27	8	41	3	0	0	0	1	0	2	3	3	49	110
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				—48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	54	156	108	64	30	5	5	8	14	17	42	137	640
Mersa Matruh . .	23	3	5	1—10	69	68	20	14	18	14	19	9	9	42	58	63	403
				11—27	103	22	13	4	14	8	0	13	5	1	13	90	286
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				—48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	172	90	33	18	32	22	19	22	14	43	71	153	689
Alexandria	6	0	0	1—10	45	54	8	18	52	3	17	10	5	12	271	64	559
				11—27	10	18	0	0	0	0	2	1	1	1	107	15	155
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				—48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	55	72	8	18	52	3	19	11	6	13	378	79	714
Port Said	0	0	0	1—10	125	77	5	24	13	11	9	4	20	49	43	123	503
				11—27	63	15	2	0	0	0	0	0	0	3	14	120	217
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				—48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	188	92	7	24	13	11	9	4	20	52	57	243	720
Tanta	39	0	0	1—10	116	78	31	53	23	6	11	24	34	66	80	119	641
				11—27	9	12	3	4	0	0	0	0	1	0	5	6	40
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				—48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	125	90	34	57	23	6	11	24	35	66	85	125	681
Cairo	7	0	470	1—10	43	25	13	0	0	0	1	0	1	11	30	62	186
				11—27	18	0	14	0	0	0	0	0	0	0	2	23	57
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				—48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	61	25	27	0	0	0	1	0	1	11	32	85	243
Fayoum	24	1	1	1—10	305	242	3	2	1	1	3	10	13	7	10	47	644
				11—27	4	43	0	0	0	0	0	0	0	0	0	3	50
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				—48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	309	285	3	2	1	1	3	10	13	7	10	50	694
Minya	4	17	7	1—10	113	11	1	1	0	19	3	1	4	3	10	111	277
				11—27	325	2	0	0	0	0	0	0	0	0	2	85	414
				28—47	1	0	0	0	0	0	0	0	0	0	0	0	0
				—48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	439	13	1	1	0	19	3	1	4	3	13	196	692

Table A 5 (contd.)—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES

JUNE — 1967

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated													All directions
					345	015	045	075	105	135	165	195	225	255	285	315		
					/	/	/	/	/	/	/	/	/	/	/	/		
				014	044	074	104	13	164	194	224	254	284	314	344			
Asyout	1	1	207	1—10	17	11	5	7	7	2	4	3	7	73	87	56	279	
				11—27	33	30	4	0	0	0	0	0	0	0	46	119	232	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				—48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	50	41	9	7	7	2	4	3	7	73	133	175	511	
Louxor	0	1	4	1—10	93	96	29	11	4	16	75	27	21	65	88	137	662	
				11—27	9	10	0	0	0	0	0	0	0	1	7	26	53	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				—48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	102	106	29	11	4	16	75	27	21	66	95	163	715	
Aswan	0	0	3	1—10	139	110	32	4	2	2	1	0	3	1	4	42	340	
				11—27	173	121	21	3	0	0	0	0	0	0	8	51	377	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				—48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	312	231	53	7	2	2	1	0	3	1	12	93	717	
Siwa	11	6	0	1—10	40	97	99	89	47	24	21	19	25	37	59	87	644	
				11—27	6	17	2	3	1	2	1	3	0	9	12	3	59	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				—48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	46	114	101	92	48	26	22	22	25	46	71	90	703	
Dakhla	6	8	0	1—10	64	59	38	12	10	16	26	20	23	44	66	119	497	
				11—27	57	89	10	1	0	0	0	0	0	0	0	52	209	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				—48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	121	148	48	13	10	16	26	20	23	44	66	171	706	
Kharga	0	2	22	1—10	56	29	1	1	3	0	2	1	6	3	68	69	239	
				11—27	196	51	0	0	0	0	0	0	0	0	48	162	457	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				—48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	252	80	1	1	3	0	2	1	6	3	116	231	696	
Hurghada	12	0	0	1—10	12	34	1	3	2	7	5	0	0	2	16	60	142	
				11—27	206	99	0	0	0	0	0	0	0	0	40	221	566	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				—48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	218	133	1	3	2	7	5	0	0	2	56	281	708	
Quseir	1	3	0	1—10	122	20	8	4	3	4	3	2	3	3	33	102	307	
				11—27	360	4	0	0	0	0	0	0	0	0	1	44	409	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				—48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	482	24	8	4	3	4	3	2	3	3	34	146	716	

JUNE — 1967

Table B 1 (contd.).—UPPER AIR CLIMATOLOGICAL DATA

JUNE — 1967

Table B 2.—MEAN AND EXTREME VALUES OF THE FREEZING LEVEL AND THE TROPOPAUSE ;
THE HIGHEST WIND SPEED IN THE UPPER AIR

JUNE — 1967

Station	Freezing Level									First Tropopause									Highest wind speed				
	Mean			Highest			Lowest			Mean			Highest			Lowest			Altitude (gpm)	Pressure (mb.)	Direction (000—360)		
	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Speed in Knots		
0000 U.T.	(N)	(N)	(N)							(N)	(N)	(N)											
	M. Matruh (A)	4286 (30)	610 (30)	-12.9 (21)	5080	549	—	3650	654	-13.0	12902 (14)	185 (14)	-60.1 (14)	15520	119	-69.7	10070	277	-42.7	11850	212	250	112
	Helwan . . .	4358 (27)	567 (27)	-13.3 (7)	5750	508	—	4120	622	—	14793 (21)	141 (21)	-68.1 (21)	18370	76	-77.9	10560	255	-49.8	13370	167	240	130
Aswan . . (A)	M. Matruh (A)	4770 (23)	579 (23)	-12.4 (9)	5100	552	-17.2	4440	598	—	16815 (11)	97 (11)	-75.7 (11)	17670	83	-75.8	15920	113	-74.3	9180	318	250	95
	Helwan . . (A)	4498 (24)	596 (24)	-11.7 (12)	5520	526	—	3940	632	—	(N)	(N)	(N)										
	Aswan . . (A)	4782 (29)	575 (29)	-13.3 (7)	5580	520	—	4120	620	-10.2	14944 (14)	141 (14)	-65.2 (14)	18710	72	-65.0	11620	222	-52.3	11400	232	210	140
1200 U.T.	M. Matruh (A)	4958 (23)	564 (23)	-13.4 (10)	5790	507	—	4320	698	-13.5	16412 (10)	106 (10)	-73.0 (10)	17280	93	-75.2	15560	121	-74.5	9810	294	250	84

N = The number of cases the element has been observed during the month.

Table B 3.—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES
MERSA MATRUH (A) — JUNE 1967

Time	Pressure Surface (Millibar)	Wind between specified ranges of direction (000—360) ^o														Number of Calm winds	Total Number of Observations (TN)	Mean Scalar wind Speed (Knots)										
		345 / 014		015 / 044		045 / 074		075 / 104		105 / 134		135 / 164		165 / 194		195 / 224		225 / 254		255 / 284		285 / 314						
		N	m	N	m	N	m	N	m	N	m	N	m	N	m	N	m	N	m	N	m	N	m					
0000 U.T.	Surface	5	7	2	12	0	—	0	—	1	12	3	7	0	—	1	22	1	1	5	4	6	3	6	5	30	6	
	1000	4	14	2	8	0	—	0	—	1	16	3	7	1	20	0	—	1	6	0	—	4	12	6	11	23	11	
	850	8	19	1	29	0	—	2	16	0	—	0	—	0	—	2	16	0	—	1	13	5	19	5	20	0	19	
	700	2	37	0	—	1	27	1	21	0	—	0	—	0	—	2	28	4	29	7	28	6	24	0	23	28		
	600	2	42	0	—	1	18	1	10	0	—	0	—	0	—	3	48	2	39	11	35	3	29	0	23	35		
	500	1	34	1	7	1	6	0	—	0	—	0	—	0	—	0	—	9	39	4	50	5	32	0	21	36		
	400	0	—	0	—	0	—	0	—	0	—	0	—	1	5	0	—	2	53	8	39	5	40	4	34	0	20	38
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	34	9	47	1	58	1	52	0	15	47		
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	74	4	54	0	—	2	68	0	11	64		
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	57	2	64	0	—	1	34	0	4	55		
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	16	0	—	0	—	0	—	0	1	16		
	70	0	—	0	—	0	—	0	—	1	9	0	—	0	—	0	—	0	—	0	—	0	—	0	1	23		
	60	0	—	0	—	1	23	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	14		
	50	0	—	0	—	0	—	1	14	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	38		
	40	0	—	0	—	1	38	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	—		
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
1200 U.T.	Surface	11	13	5	10	3	13	0	—	1	7	1	7	0	—	1	18	0	—	0	—	0	—	4	15	0	26	13
	1000	4	15	3	12	2	8	2	11	0	—	1	2	0	—	0	—	0	—	1	12	11	17	0	24	14		
	800	7	15	2	12	1	12	0	—	0	—	0	—	0	—	2	14	0	—	3	16	5	18	4	24	0	24	17
	700	2	14	2	22	1	12	0	—	0	—	0	—	0	—	0	—	1	15	2	40	6	32	9	25	0	23	26
	600	2	16	0	—	1	4	1	23	0	—	0	—	0	—	0	—	2	34	2	43	8	38	5	32	0	20	32
	500	0	—	0	—	0	—	0	—	1	14	0	—	0	—	0	—	3	40	6	28	7	34	1	37	0	18	32
	400	0	—	0	—	0	—	0	—	1	15	0	—	0	—	0	—	4	41	5	49	8	44	0	—	0	17	45
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	41	5	49	8	44	0	—	0	12	65
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	64	2	66	5	75	4	52	0	—	0	8	57
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	67	4	60	1	60	2	46	0	—	0	0	7
	100	0	—	0	—	0	—	0	—	0	—	0	—	1	7	1	20	2	28	1	25	2	18	0	—	0	1	00
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	17	
	60	0	—	0	—	1	17	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	8	
	50	0	—	0	—	1	8	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	15	
	40	0	—	0	—	1	15	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	—	—	
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

N = The number of cases the element has been observed during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

Table B 3.—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES
HELWAN — JUNE 1967

Time	Pressure Surface (Millibar)	Wind between specified ranges of direction (000—360)°														Number of Calm winds	Total Number of Observations (TN)	Mean Scalar wind Speed (Knots)										
		345		015		045		075		105		135		165		195		225		255		285						
		/	014	/	044	/	074	/	104	/	134	/	164	/	194	/	224	/	254	/	284	/	314	/	344			
0000 U.T.	Surface	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	28	8	8		
	1000	9	7	4	11	2	11	2	10	1	5	0	—	0	—	0	—	1	14	0	—	0	—	8	1	0	9	
	850	1	9	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	0	1	0	
	700	6	20	8	14	1	12	0	—	0	—	0	—	1	13	0	—	0	—	1	10	4	20	7	15	0	28	16
	600	3	31	1	11	2	24	0	—	0	—	0	—	0	—	1	32	2	31	6	28	8	16	4	28	0	27	28
	500	2	42	1	28	1	5	0	—	0	—	0	—	0	—	2	28	7	28	6	24	1	34	0	24	26		
	400	0	22	0	—	0	—	0	—	0	—	0	—	0	—	2	42	7	40	7	33	2	42	3	37	0	22	37
	300	1	18	0	—	0	—	0	—	0	—	0	—	0	—	2	72	11	53	5	50	0	—	2	48	0	21	49
	200	0	—	0	—	0	—	0	—	0	—	0	—	1	60	4	56	7	67	3	46	1	60	0	—	0	16	59
	150	0	—	0	—	0	—	0	—	0	—	0	—	1	73	3	54	7	66	0	—	1	58	0	—	0	12	63
	100	0	—	0	—	0	—	1	21	0	—	0	—	2	38	2	30	0	—	1	23	1	26	0	—	0	7	29
	70	0	—	1	17	1	22	1	66	1	20	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	31	
	60	0	—	0	—	1	40	2	25	1	16	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	26	
	50	0	—	1	3	0	—	3	24	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	19	
	40	0	—	0	—	0	—	3	25	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	28	
	30	0	—	0	—	0	—	2	35	1	23	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	31	
	20	0	—	0	—	0	—	1	32	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	32	
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
1200 U.T.	Surface	10	14	3	11	1	20	0	—	0	—	0	—	0	—	1	14	0	—	3	12	5	12	6	12	0	29	13
	1000	0	—	0	—	0	—	0	—	0	—	0	—	1	23	0	—	0	—	1	14	2	16	5	18	9	12	0
	850	4	14	7	13	0	—	1	10	1	9	0	—	0	—	2	14	6	30	5	18	9	12	0	29	15		
	700	4	25	1	25	0	—	1	10	1	9	0	—	0	—	1	24	3	38	11	21	4	28	5	20	0	29	22
	600	1	50	3	14	0	—	0	—	0	—	0	—	2	11	1	30	4	39	12	31	5	23	2	32	0	28	30
	500	2	25	0	—	0	—	0	—	0	—	0	—	0	—	2	46	10	43	8	33	4	24	2	54	0	26	38
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	78	14	44	5	45	0	—	0	—	0	22	49
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	54	9	57	4	57	0	—	0	—	0	16	56
	200	0	—	0	—	0	—	0	—	0	—	0	—	1	26	3	85	6	48	0	—	0	—	1	66	0	11	57
	150	0	—	0	—	0	—	0	—	0	—	0	—	1	33	0	—	2	52	0	—	0	—	0	—	3	56	
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	44	
	70	0	—	0	—	0	—	1	36	0	—	0	—	0	—	0	—	0	—	1	52	0	—	0	—	0	2	52
	60	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	41	1	62	0	—	0	—	0	—	0	2	
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		

N = The number of cases the element has been observed direction during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

Table B 3.—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES
ASWAN (A) — JUNE 1967

Time	Pressure Surface (Millibar)	Wind between specified ranges of direction (000—360) ^o														Number of Calm winds	Total Number of Observations (TN)	Mean Scalar wind Speed (Knots)			
		345 / 015		045 / 075		105 / 135		165 / 195		225 / 255		285 / 315									
		N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m						
0000 U.T.	Surface	15	9	4	13	0	—	1	9	0	—	0	—	0	—	0	—	0			
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	24			
	850	8	24	4	18	3	17	2	7	0	—	0	—	1	5	2	6	10			
	700	2	28	3	13	2	26	1	10	1	6	0	—	0	—	2	17	10			
	600	4	9	1	33	3	12	0	—	1	9	0	—	0	—	2	18	12			
	500	5	16	1	11	1	10	0	—	1	9	1	3	2	21	2	22	13			
	400	1	9	1	13	1	1	1	4	0	—	0	—	4	24	3	15	19			
	300	1	7	0	—	0	—	1	8	1	8	0	—	1	9	1	22	15			
	200	0	—	0	—	1	5	0	—	0	—	2	18	0	—	3	25	54			
	150	1	7	0	—	0	—	0	—	0	—	2	23	1	15	2	26	35			
	100	0	—	0	—	0	—	0	—	2	6	1	6	1	13	0	2	24			
	70	0	—	0	—	0	—	0	—	3	17	3	13	1	25	0	1	19			
	60	0	—	1	17	1	14	2	12	3	10	0	—	0	—	1	11	0			
	50	0	—	0	—	5	14	3	15	0	—	0	—	0	—	0	0	0			
	40	0	—	0	—	16	3	21	3	18	0	—	0	—	0	—	0	8			
	30	0	—	0	—	0	—	6	28	0	—	0	—	0	—	0	0	28			
	20	0	—	0	—	0	—	2	15	0	—	0	—	0	—	0	0	7			
	10	0	—	0	—	0	—	2	15	0	—	0	—	0	—	0	0	15			
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	15			
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	29			
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	14			
1200 U.T.	Surface	8	13	9	14	1	6	1	14	0	—	0	—	0	—	1	10	0			
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	25			
	850	3	6	9	15	2	12	0	—	0	—	1	4	0	—	0	6	14			
	700	1	17	4	23	1	3	1	11	0	—	1	5	1	8	2	16	10			
	600	1	18	1	13	5	13	0	—	0	—	1	7	1	15	3	17	8			
	500	5	14	4	14	2	14	0	—	0	—	0	—	0	—	3	18	10			
	400	4	22	1	10	0	—	0	—	1	2	1	8	1	15	0	4	11			
	300	0	—	0	—	0	—	0	—	0	—	1	9	1	9	6	10	20			
	200	0	—	0	—	0	—	0	—	0	—	2	16	1	31	6	20	16			
	150	0	—	0	—	0	—	0	—	3	25	1	28	2	13	5	26	46			
	100	0	—	0	—	0	—	1	11	4	19	3	26	0	—	1	11	0			
	70	0	—	0	—	1	9	1	19	3	18	2	15	0	—	1	9	0			
	60	0	—	0	—	0	—	1	10	3	15	1	21	0	—	0	0	—			
	50	0	—	0	—	0	—	3	15	1	23	1	21	0	—	0	0	—			
	40	0	—	0	—	1	25	1	13	1	15	0	—	0	—	0	0	—			
	30	0	—	0	—	0	—	0	—	2	26	0	—	0	—	0	0	—			
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			

N = The number of cases the element has been observed direction during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

REVIEW OF AGRO-METEOROLOGICAL STATIONS

EL KASR — JUNE 1967

This month was mild. The mean daily air temperature at 2 metres above ground was 0.1°C above normal. The month was characterized by two intense heat waves in the periods 9th-12th and 18th-21st, with peaks on 12th and 21st. The second heat wave was the most excessive and was associated with the highest maximum air temperature and lowest value of relative humidity for the month on the 21st.

The extreme maximum soil temperatures at depths between 2 and 20 cm were lower than the corresponding values of June 1966 by values ranging between 2.4°C at 2cm depth and 0.9°C at 20 cm depth, while at depths 50 and 100cm the values were 0.4C and 0.1°C respectively higher than corresponding values of last June. The extreme minimum soil temperatures at depths between 2 and 10cm and at 100cm were higher than corresponding values of last June by values ranging between 8.5°C at 2cm depth and 0.1 at 100cm depth. At 20 & 50 cm depths the values were 0.5, 0.7°C respectively lower than corresponding values of June 1966.

Mean daily pan evaporation was 0.59mm lower than the corresponding value of June 1966. Total actual duration of bright sunshine was 6.1 hours higher than the corresponding value of last June.

TAHRIR — JUNE 1967

Compared with June 1966, this month was slightly cold and slightly dry. Mean daily air temperature at 2 metres above ground was 0.3°C lower, and mean daily relative humidity was 1% lower than the corresponding values of June 1966. The month was characterized by two intense heat waves in the periods 10th — 13th & 19th — 21st with peaks on 13th & 21st respectively. The second peak was associated with the highest value of maximum air temperature and the lowest value of relative humidity for the month. The month was also characterized by three mild spells in the periods 4th—5th, 7th-8th and 22nd-27th. with peaks on 4th, 7th and 23rd, & 24th respectively.

The extreme maximum soil temperatures at depths 5, 10cms were 2.3°C and 2.5°C respectively lower than corresponding values of June 1966, while at other depths the values were higher than corresponding values of last June by values ranging between 3.0°C at 2cm depth and 0.4°C at 100cm depth. The extreme minimum soil temperatures at depths 2.5 and 10cm were 7.3, 3.4 and 0.2°C respectively higher than corresponding values of June 1966, while at depths 20, 50cm the values were 2.1°C, 1.9°C lower than corresponding values of last June and the extreme minimum soil temperature at 100cm was equal to that of June 1966.

Mean daily pan evaporation was 0.07mm higher than the corresponding value of June 1966. Total duration of bright sunshine was 7.6 hours higher than corresponding value of last June.

BAHTIM — JUNE 1967

This month was mild. It was characterized by two hot waves in the periods from 10th to 14th and from 19th to 21st. The month was also characterized by two mild spells during the periods from 4th to 8th, from 23rd to 28th.

GIZA — JUNE 1967

This month was mild and slightly drier than normal. The mean daily air temperature at 2 metres above ground was 0.1°C above normal, the mean daily relative humidity was 3% below normal. The month was characterized by two intense heat waves in the periods 10th-13th and 19th-21st with peaks on 13th & 21st respectively, the second peak was associated with the highest value of maximum air temperature for the month. The month was also characterized by two mild spells in 7th-8th & 23rd-25th with peaks on 7th & 23rd respectively.

The extreme maximum soil temperature at 2cm depth was 0.6C higher than the corresponding value of June 1966, while at depths between 5 and 100 cm the values were lower than the corresponding values of last June by values ranging between 2.2°C at 10cm depth and 0.8°C at 20 cm and 100cm depth. The extreme minimum soil temperatures at depths 2 and 5 cms were 6.2°C and 0.5°C respectively higher than corresponding values of June 1966, while at depths between 10 and 100 cm the values were lower than corresponding values of last June by values ranging between 0.5°C at 100cm depth and 1.6°C at 10cm depth.

Mean daily pan evaporation was 2.37mm higher than the corresponding value of June 1966, Mean daily potential evapotranspiration was 0.1 mm higher than the corresponding value of last June. Total actual duration of bright sunshine was 0.6 hours higher than the corresponding value of June 1966.

KHARGA — JUNE 1967

This month was warmer than normal. The mean daily air temperature at 2 metres above ground was 2.5°C above normal. The month was characterized by 2 intense heat waves in the periods 10th-14th and 19th-22nd with peaks on 13th and 22nd respectively. The second heat wave was associated with the highest maximum air temperature and the lowest value of relative humidity for the month on the 22nd. The month was also characterized by two mild spells in the period 24th-28th with peak on the 25th and on 8th.

The extreme maximum soil temperatures at depths between 2 and 20cm. were higher than corresponding values of June 1966, by values ranging between 3.8°C at 2 cm depth and 0.7°C at 20cm depth, while at 50, 100 cm depths the values were 0.1, 0.3 respectively lower than the corresponding values of June 1966. The extreme minimum soil temperatures at depths between 5 and 100cm were lower than the corresponding values of last June by values ranging between 1.8°C at 20cm depth and 0.4°C at 100cm depth, while at 2cm depth the value was equal to the corresponding value of last June.

Mean daily pan evaporation was 1.53mm higher than corresponding value of June 1966. Total actual duration of bright sunshine was 6.2 hours lower than the corresponding value of last June.

Table C 1. — AIR TEMPERATURE AT 2 METRES ABOVE GROUND
JUNE — 1967

STATION	Air Temperature (°C)					Mean Duration in hours of daily air temperature above the following values										
	Mean Max.	Mean Min.	Mean of the day	Night time mean	Day time mean	-5°C	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C
El Kasr	27.6	17.6	23.1	20.4	24.0	24.0	24.0	24.0	24.0	23.5	19.7	7.1	0.4	0.0	0.0	0.0
Tahrir	34.7	18.5	25.8	21.6	27.4	24.0	24.0	24.0	24.0	24.0	19.8	11.7	5.7	1.5	0.2	0.0
Bahtim	34.8	16.5	25.5	20.4	27.4	24.0	24.0	24.0	24.0	23.7	18.2	11.8	6.9	1.8	0.4	0.0
Giza	35.0	19.2	27.0	23.3	28.3	24.0	24.0	24.0	24.0	24.0	21.6	14.1	7.4	1.9	0.3	0.0
Kharga	40.0	24.7	32.5	29.1	33.7	24.0	24.0	24.0	24.0	24.0	24.0	21.4	15.5	8.3	2.5	0.3

**Table C 2 — ABSOLUTE VALUES OF AIR TEMPERATURE AT 2 METRES ABOVE GROUND,
 ABSOLUTE MINIMUM AIR TEMPERATURE AT 5cms ABOVE GROUND OVER
 DIFFERENT FIELDS**

JUNE — 1967

STATION	Max. Temp. at 2 metres (°C)				Min. Temp. at 2 metres (°C)				Min. Temp. at 5 cms. above (°C)			
	Highest		Lowest		Highest		Lowest		Dry soil		Grass	
	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date
El Kasr	38.2	21	24.6	6	21.4	21	12.4	2	10.6	1.2	—	—
Tahrir	46.0	21	29.1	7	23.2	21	15.8	9	14.7	9	—	—
Bahtim	43.7	21	29.0	7	20.8	30	13.4	9	10.4	6	—	—
Giza	44.0	21	29.6	7	21.8	30	16.6	6	13.6	10	12.3	10
Kharga	47.4	22	34.4	8	31.7	14	19.4	1	15.8	1	—	—

Table C 3.—SOLAR+SKY RADIATION, DURATION OF BRIGHT SUNSHINE, RELATIVE HUMIDITY, VAPOUR PRESSURE AT 2 METRES ABOVE GROUND, EVAPORATION & RAINFALL

JUNE — 1967

STATION	(Solar+Sky) Radiation gm. ca./cm ²	Duration of Bright Sunshine (hours)			Relative Humidity				Vapour pressure (mms)				Evaporation (mms)		Rainfall (mms)				
		Total monthly	Actual monthly	Total Possible monthly	%	Mean of day	1200 U.T.	Lowest	Date	Mean of day	1200 U.T.	Highest	Date	Lowest	Date	Piche	Pan class (A)	Total Amount Monthly	Max. Fall in one day
El Kasr	580.5	372.3	425.5	87	72	63	16	21	14.9	16.1	20.1	9.29	6.8	10	7.0	10.57	0.0	0.0	—
Tahrir	688.2	375.8	422.2	91	59	33	14	21	13.3	12.5	19.3	28.29	9.0	10	11.8	12.05	0.0	0.0	—
Bahtim	—	363.5	421.7	86	55	28	12	12	12.2	10.5	17.7	30	6.6	12	15.9	14.41	0.0	0.0	—
Giza	688.2	368.7	421.7	87	49	26	12	12	11.9	10.0	16.8	30	6.0	12	14.3	15.57	0.0	0.0	—
Kharga	588.1	370.2	409.8	90	21	13	5	21	7.0	6.4	12.6	23	3.7	21	37.1	25.96	0.0	0.0	—

**Table C 4.—EXTREME SOIL TEMPERATURE AT DIFFERENT DEPTHS
IN DIFFERENT FIELDS**

JUNE — 1967

STATION	H Lowest L Highest	Extreme soil temperature (°C) in dry field at different depths (cms.)										Extreme soil temperature (°C) in grass field at different depths (cms.)									
		0.3	1	2	5	10	20	50	100	200	300	0.3	1	2	5	10	20	50	100	200	300
El Ksar . . .	H	—	—	44.8	39.8	33.8	28.6	27.3	25.1	22.8	—	—	—	—	—	—	—	—	—	—	—
	L	—	—	24.2	21.8	20.8	23.0	24.0	22.8	21.4	—	—	—	—	—	—	—	—	—	—	—
Tahrir	H	—	—	53.7	45.8	40.4	36.7	32.8	30.7	27.6	25.7	—	—	—	—	—	—	—	—	—	—
	L	—	—	26.3	25.8	25.4	26.6	27.7	27.3	24.6	23.7	—	—	—	—	—	—	—	—	—	—
Bahtim	H	—	—	—	41.0	36.5	31.6	29.1	26.7	23.6	—	—	—	—	—	—	—	—	—	—	—
	L	—	—	—	24.9	25.4	27.1	24.3	24.1	22.2	—	—	—	—	—	—	—	—	—	—	—
Giza	H	—	—	—	44.6	37.7	33.6	31.4	29.0	25.5	24.2	—	—	—	30.8	29.1	27.2	25.8	—	—	—
	L	—	—	—	26.0	27.0	28.4	28.4	26.5	24.0	23.4	—	—	—	21.2	21.7	22.9	23.2	—	—	—
Kharga	H	—	—	60.8	54.7	44.4	38.5	34.5	31.6	29.0	27.8	—	—	—	—	—	—	—	—	—	—
	L	—	—	21.6	23.8	28.0	30.2	30.5	29.3	27.5	27.0	—	—	—	—	—	—	—	—	—	—

Table C 5.—SURFACE WIND

JUNE — 1967

STATION	Wind Speed m/sec at 1½ metres			Days with surface wind speed at (10 metres)								Max. Gust (knots) at (10 metres)	
	Mean of the day	Night time mean	Day time mean	≥ 10 knots	≥ 15 knots	≥ 20 knots	≥ 25 knots	≥ 30 knots	≥ 35 knots	≥ 40 knots		value	Date
El Ksar	—	—	—	—	—	—	—	—	—	—	—	—	—
Tahrir	2.6	1.7	3.5	30	23	2	0	0	0	0	31	21	
Bahtim	2.9	2.2	3.8	—	—	—	—	—	—	—	—	—	—
Giza	2.8	2.3	3.3	30	20	2	0	0	0	0	29	11	
Kharga	5.5	4.4	6.5	30	27	20	8	3	0	0	41	11	

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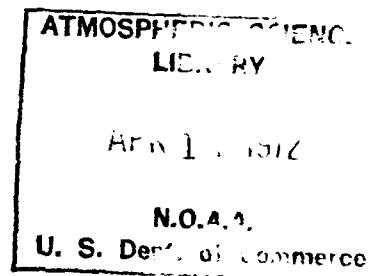
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As from January 1968, this report was revised to include a condensed representative selection of surface and upper air observations besides the 1200 U.T. surface & 500 mb charts.

THE MONTHLY WEATHER REPORT

First issued in 1909, the Monthly Weather Report served to give a brief summary of the weather conditions that prevailed over Egypt during the month, with a table showing the mean values for few meteorological elements and their deviations from the normal values. From 1954 to 1957 this report was in a rapid state of development and extension resulting into a voluminous report on January 1958 giving surface, upper air, and agro-meteorological data for Egypt.

As from January 1964, the Monthly Weather Report was pressed to give climatological data for a representative selection of synoptic stations.

THE AGRO-METEOROLOGICAL ABRIDGED MONTHLY REPORT

Gives a review of weather experienced in the agro-meteorological stations of Egypt as well as monthly values of certain elements.

THE ANNUAL REPORT

This report gives annual values and statistics for the various meteorological elements, together with a summary of the weather conditions that prevailed during all months of the year.

CLIMATOLOGICAL NORMALS FOR EGYPT

A voluminous edition was issued in March 1968 which brings normals and mean values up till 1960.

METEOROLOGICAL RESEARCH BULLETIN

First issued in January 1969 on a bi-annual basis. It includes research works carried out by members of staff of "The Meteorological Institute for Research and Training" and the Operational Divisions of Meteorological Authority.

TECHNICAL NOTES

As from October 1970, the Meteorological Authority started to issue a new series of publications in the form of Technical Notes (non periodical) on subjects related to studies and applications of meteorology in different fields for the benefit of personnel working in these fields.

The first Technical Note I was issued in October 1970 on : Sandstorms & Duststorms in Egypt.



THE ARAB REPUBLIC OF EGYPT

MONTHLY WEATHER REPORT

VOLUME 10

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THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

NOTICE

As from 25th November 1971 the name of the (Meteorological Department) has been changed to be the (Meteorological Authority).

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GENERAL SUMMARY OF WEATHER CONDITIONS

JULY 1967

Mild summer weather in the northern parts, hot in the central parts and excessively hot in the southern parts. Early morning stratus and mist over Delta, Canal and Cairo.

GENERAL DESCRIPTION OF WEATHER

The prevailing weather this month was generally of the normal Summer type, though it was rather humid in the northern and central parts and dry in the southern parts.

Early morning low clouds and mist patches developed frequently over Delta, Canal & Cairo areas. Local light rising sand was observed for several days over scattered localities in the Western Desert & Red Sea areas.

PRESSURE DISTRIBUTION

The most outstanding features of pressure distribution over the surface maps were :

- The Atlantic anticyclone.
- A local anticyclone north of the Black Sea.
- Deep low pressure systems moving through North Urasia.
- A ridge of high pressure over Central Mediterranean & Libya.
- The complex monsoon low pressure over Iraq, Arabia & Sudan.

During this month, the Iraq monsoon trough extended westwards through East Mediterranean and deepened slightly four consecutive times round the periods : (3rd-5th), (7th-10th), (15th-20th) & (24th-27th)

respectively. These elongations were favoured by the passage of depressions or troughs north of the Black Sea area. Accordingly, the barometric pressure in Egypt showed four corresponding falls.

During the rest periods of the month, high pressure over central Mediterranean operated over East Mediterranean & Libya and the barometric pressure over Egypt was above normal.

The most outstanding features of pressure distribution over the 700 & 500 mb. upper charts were :

- Deep low pressure systems over North Atlantic and North Urasia.
- Secondary lows (or troughs) through middle latitudes between 30° & 45° N, traversing East Mediterranean & Egypt round the 4th, 10th, 17th, 23rd & 31st.
- High pressure system over the subtropical latitudes.

SURFACE WIND

Light to moderate N/NW winds prevailed most days of this month in general. Winds became fresh to strong during several days in scattered localities mainly in the Mediterranean western part, Western Desert & Red Sea districts. Calms were frequent most of night & early morning intervals in scattered localities.

TEMPERATURE

Maximum temperature was rather normal during this month. It oscillated slightly round normal in the northern parts and slightly below normal in the central & southern parts. Maximum temperature values ranged most days of the month between 27° & 31°C in the northern parts, between 33° & 37°C in the central parts and between 38° & 42°C in the southern parts.

The absolute maximum temperature was 44.4°C reported at Aswan on the 14th.

Minimum temperature oscillated slightly above normal in the northern parts and slightly below normal in the central & southern parts. Its values ranged most days of the month between 18° & 23°C in the northern & central parts and between 22° & 26°C in the southern parts.

The absolute minimum temperature was 14.5°C reported at Borg El Arab on the 18th.

PRECIPITATION

This month was rainless.

Cairo, December 1971

Chairman (M. F. TAHA)

Board of Directors

**Table A 1.—MONTHLY VALUES OF THE ATMOSPHERIC PRESSURE, AIR TEMPERATURE,
RELATIVE HUMIDITY, BRIGHT SUNSHINE DURATION & PICHE EVAPORATION**

JULY — 1967

STATION	Atmospheric Pressure (mbs) M.S.L.		Air Temperature °C								Relative Humidity %		Bright Sunshine Duration (Hours)			Piche Evaporation mms. Mean	
	Mean	D.F. Normal or Average	Maximum		Minimum		A+B 2	Dry Bulb		Wet Bulb		Mean	D.F. Normal or Average	Total Actual	Total Possible	%	
			(A) Mean	D.F. Normal or Average	(B) Mean	D.F. Normal or Average		Mean	D.F. Normal or Average	Mean	D.F. Normal or Average						
Sallum	1010.4	+0.1	30.3	-0.6	21.5	+0.2	25.9	25.6	-0.5	21.0	-0.4	64	0	—	—	—	21.0
Mersa Matruh (A)	1010.0	+0.2	28.9	-0.3	20.3	0.0	24.6	24.6	-0.4	21.4	-0.1	74	+1	—	—	—	—
Alexandria . (A)	1009.2	+0.7	30.4	-0.7	22.7	+0.1	26.6	25.7	-0.3	22.1	-0.4	72	-1	369.1	431.2	86	—
Port Said . . (A)	1007.4	-0.1	29.5	-0.9	23.4	-0.7	26.4	25.9	-0.8	22.2	-0.9	72	0	370.4	432.3	86	24.6
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	1007.9	+0.3	32.9	-1.5	20.1	+0.8	26.5	26.0	-0.5	21.1	-0.3	63	+1	376.8	431.0	87	—
Cairo (A)	1008.0	0.0	34.0	-1.2	21.5	0.0	27.8	26.6	-1.3	21.1	-0.2	59	+6	—	—	—	—
Fayoum	1007.7	0.0	36.5	-0.2	20.6	-0.9	28.6	28.2	-0.7	20.8	0.0	49	+4	—	—	—	19.0
Minya (A)	1007.1	-0.2	35.7	-1.0	18.8	-1.5	26.8	27.5	-1.0	19.8	-0.5	45	0	388.6	425.3	91	17.5
Assyout (A)	1006.9	+0.1	35.7	-1.1	21.8	-0.5	28.8	28.9	-0.9	19.2	-0.2	36	+2	—	—	—	20.5
Luxor (A)	1004.8	0.0	40.1	-0.4	23.4	-0.2	31.8	32.2	-0.6	19.8	-0.1	27	+2	—	—	—	17.9
Aswan (A)	1004.6	-0.1	40.8	-0.3	24.0	-0.7	32.4	33.2	-0.4	17.9	-0.2	16	+1	—	—	—	—
Siwa	1009.5	-0.2	36.7	-0.2	20.7	0.0	28.7	29.1	-0.6	19.2	-0.2	35	+1	—	—	—	19.3
Bahariya	1008.0	0.0	36.6	-0.3	21.6	+1.1	29.1	29.4	0.0	19.3	-0.1	34	-2	—	—	—	19.7
Farafra	1009.3	-0.1	36.7	-0.5	21.0	-0.3	28.8	29.2	-0.6	18.4	+0.8	30	+6	—	—	—	19.8
Dakhla	1008.1	+1.3	37.8	-0.7	22.4	-0.5	30.1	30.5	-0.5	17.5	-0.4	21	0	—	—	—	—
Kharga	1006.4	0.0	38.9	-0.6	24.3	+1.1	31.6	31.9	+0.3	17.6	-1.1	17	-9	383.8	418.9	92	21.7
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1003.9	-0.5	32.7	-0.2	24.8	-0.1	28.8	29.1	-0.5	20.5	-1.2	42	-5	—	—	—	23.1
Quseir	1004.8	-0.1	31.2	-2.0	25.2	-1.1	28.2	28.6	-1.3	21.4	-0.8	51	+3	—	—	—	23.9

Table A 2.—MAXIMUM AND MINIMUM AIR TEMPERATURES

JULY — 1967

Station	Maximum Temperature °C								Grass Min. Temp.		Minimum Temperature °C								
	Highest	Date	Lowest	Date	No. of Days with Max-Temp.					Mean	Dev. From Normal	Highest	Date	Lowest	Date	No. of Days with Min. Temp.			
					>25	>30	>35	>40	>45							<10	<5	<0	<-5
Sallum	34.6	25	27.4	11, 21	31	17	0	0	0	21.0	—	23.4	20	19.0	1	0	0	0	0
Mersa Matruh	30.4	26	27.8	9	31	2	0	0	0	23.5	21	17.3	1	0	0	0	0	0	0
Alexandri (A)	31.8	26	28.8	1	31	20	0	0	0	24.5	20	18.5	12	0	0	0	0	0	0
Port Said (A)	32.2	26	27.2	15	31	11	0	0	0	25.4	23	22.0	10	0	0	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	35.4	26	31.0	5	31	31	1	0	0	—	—	22.4	28	16.8	13	0	0	0	0
Cairo (A)	36.2	6	32.3	6	31	31	5	0	0	—	—	23.1	20	20.0	12	0	0	0	0
Fayoum	40.0	2	35.0	7	31	31	30	0	0	19.0	—	22.3	27	17.8	30	—	—	—	—
Minya (A)	37.7	27	33.8	6, 7	31	31	23	0	0	17.5	—	21.0	17	16.0	30	0	0	0	0
Assyout. (A)	38.2	10	34.2	6	31	31	23	0	0	20.5	—	23.3	10, 27	19.5	13	0	0	0	0
Luxor (A)	43.5	14	37.8	5, 29	31	31	31	16	0	17.9	—	26.4	17	20.4	8	0	0	0	0
Aswan (A)	44.4	14	38.3	7	31	31	31	21	0	—	—	27.2	15	22.0	6	0	0	0	0
Siwa	38.8	12	34.2	14	31	31	26	0	0	19.3	—	23.1	13	18.5	9	0	0	0	0
Bahariya	40.0	10	34.8	4	31	31	28	0	0	19.7	—	23.9	19	19.9	9	0	0	0	0
Farafra	39.5	27	34.9	14	31	31	29	0	0	19.8	—	22.9	22, 27	19.0	8	0	0	0	0
Dakhla	41.2	10	35.2	5	31	31	31	3	0	—	—	25.0	18	18.0	10	0	0	0	0
Kharga	41.5	10	36.0	5	31	31	31	5	0	21.7	—	26.8	18	20.0	10	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	35.2	10	30.6	11	31	31	3	0	0	23.1	—	27.6	17	21.2	27	0	0	0	0
Quseir	32.9	20	30.0	5	31	30	0	0	0	23.9	—	27.6	18	23.2	3	0	0	0	0

Table A 3.—SKY COVER AND RAINFALL

JULY — 1967

Station	Mean Sky Cover Oct.					Rainfall mm.s.											
	00		06		12	18	Dail	Total	Dev. From	Max. Fall in one day		Number of Days with Amount of Rain					
	U.T.	U.T.	U.T.	U.T.	Mean		Amount	Normal	Amount	Date	<0.1	≥0.1	≥1.0	≥5.0	≥10	≥25	≥50
Sallum	0.9	0.7	1.0	0.1	0.6		0.0	0.0	0.0	—	0	0	0	0	0	0	0
Mersa Matruh . . . (A)	0.7	2.2	0.7	1.4	1.0		0.0	0.0	0.0	—	0	0	0	0	0	0	0
Alexandria (A)	1.4	1.9	1.5	1.6	1.2		0.0	0.0	0.0	—	0	0	0	0	0	0	0
Port Said (A)	—	1.7	0.4	0.0	—		0.0	0.0	0.0	—	0	0	0	0	0	0	0
El Arish	—	—	—	—	—		—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—		—	—	—	—	—	—	—	—	—	—	—
Tanta	0.9	2.0	0.6	0.0	0.6		0.0	0.0	0.0	—	0	0	0	0	0	0	0
Cairo (A)	2.7	4.0	0.6	0.6	1.1		0.0	0.0	0.0	—	0	0	0	0	0	0	0
Fayoum	—	1.7	0.1	0.3	—		0.0	0.0	0.0	—	0	0	0	0	0	0	0
Minya (A)	0.0	0.5	0.1	0.0	0.1		0.0	0.0	0.0	—	0	0	0	0	0	0	0
Assyout (A)	0.0	0.2	0.1	0.2	0.1		0.0	0.0	0.0	—	0	0	0	0	0	0	0
Luxor (A)	0.4	0.7	0.3	0.3	0.8		0.0	0.0	0.0	—	0	0	0	0	0	0	0
Aswan (A)	0.8	1.2	0.8	0.8	0.7		0.0	0.0	0.0	—	0	0	0	0	0	0	0
Siwa	0.1	0.2	0.0	0.1	0.1		0.0	0.0	0.0	—	0	0	0	0	0	0	0
Bahariya	0.0	0.5	0.2	0.2	0.7		0.0	0.0	0.0	—	0	0	0	0	0	0	0
Farafra	—	0.0	0.0	0.0	—		0.0	0.0	0.0	—	0	0	0	0	0	0	0
Dakhla	0.0	0.4	0.1	0.1	0.1		0.0	0.0	0.0	—	0	0	0	0	0	0	0
Kharga	0.2	0.1	0.2	0.2	0.1		0.0	0.0	0.0	—	0	0	0	0	0	0	0
Tor	—	—	—	—	—		—	—	—	—	—	—	—	—	—	—	—
Hurghada	0.0	0.1	0.1	0.2	0.1		0.0	0.0	0.0	—	0	0	0	0	0	0	0
Quseir	0.4	0.5	0.1	0.5	0.3		0.0	0.0	0.0	—	0	0	0	0	0	0	0

Table A 4.—DAYS OF OCCURRENCE OF MISCELLANEOUS WEATHER PHENOMENA

JULY — 1967

STATION	Precipitation				Frost	Thunderstorm	Mist Vis ≥ 1000 metres	Fog Vis <1000 metres	Haze Vis ≥1000 metres	Thick Haze Vis <1000 Metres	Dust or Sandrising Vis ≥1000 metres	Dust or Sandstorm Vis <1000 metres	Gale	Clear Sky	Cloudy Sky	
	Rain	Snow	Ice, Pellets	Hail												
Sallum	0	0	0	0	0	0	0	5	0	0	1	0	0	0	30	0
Mersa Matruh . . . (A)	0	0	0	0	0	0	0	1	0	0	6	0	0	0	24	0
Alexandria (A)	0	0	0	0	0	0	0	2	0	0	0	0	0	0	21	0
Port Said (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	—	—
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	0	0	0	0	0	0	1	0	0	0	0	0	0	0	29	0
Cairo (A)	0	0	0	0	0	0	20	1	0	0	0	0	0	0	26	0
Fayoum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	—	—
Minya (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	0
Assyout (A)	0	0	0	0	0	0	0	0	0	0	2	0	0	0	31	0
Luxor (A)	0	0	0	0	0	0	0	0	0	0	1	0	0	0	30	0
Aswan (A)	0	0	0	0	0	0	2	0	0	0	3	0	0	0	27	0
Siwa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	0
Bahariya	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	0
Farafra	0	0	0	0	0	0	0	0	1	0	3	0	0	0	—	0
Dakhla	0	0	0	0	0	0	0	0	0	11	21	0	0	0	31	0
Kharga	0	0	0	0	0	0	0	0	0	0	3	0	0	0	—	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0	0	0	0	0	0	0	0	0	0	6	0	0	0	31	0
Quseir	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0

Table A 5.—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES

JULY—1967

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated													
					345	015	045	075	105	135	165	195	225	255	285	315	All directions	
					014	044	074	104	134	164	194	224	254	284	314	344		
Sallum	2	3	0	1—10	50	144	47	16	1	0	0	0	3	8	28	98	395	
				11—27	33	75	1	0	0	0	0	0	0	0	0	24	211	344
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	83	219	48	16	1	0	0	0	3	8	52	309	739	
Mersa Matruh . . .	2	0	0	1—10	86	19	3	1	2	2	4	0	4	94	93	86	394	
				11—27	119	20	2	0	0	0	0	0	0	0	35	172	348	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	205	39	5	1	2	2	4	0	4	94	128	258	742	
Alexandria	2	0	6	1—10	75	16	8	0	2	2	2	0	0	10	99	149	363	
				11—27	47	0	0	0	0	0	0	0	0	7	149	170	373	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	122	16	8	0	2	2	2	0	0	17	248	319	736	
Port Said	0	0	0	1—10	181	15	0	0	0	0	0	4	20	101	68	121	510	
				11—27	59	2	0	0	0	0	0	0	0	29	36	108	234	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	240	17	0	0	0	0	0	4	20	130	104	229	744	
Tanta	33	0	3	1—10	35	4	0	0	0	0	12	65	90	135	221	132	694	
				11—27	2	0	0	0	0	0	0	0	0	2	3	7	14	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	37	4	0	0	0	0	12	65	90	137	224	139	708	
Cairo	25	0	14	1—10	123	51	16	4	1	2	2	1	6	52	115	127	500	
				11—27	69	27	1	0	0	0	0	0	0	3	26	79	205	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	192	78	17	4	1	2	2	1	6	55	141	206	705	
Fayoum	14	1	5	1—10	379	188	5	1	1	0	2	3	1	9	22	77	688	
				11—27	5	28	0	0	0	0	0	0	0	0	0	3	36	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	384	216	5	1	1	0	2	3	1	9	22	80	724	
Minya	3	25	4	1—10	256	25	7	15	1	0	0	1	1	0	3	80	389	
				11—27	270	12	3	2	0	0	0	0	0	1	35	323		
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	526	37	10	17	1	0	0	1	1	0	4	115	713	

Table A 5. (contd.)—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES

JULY — 1967

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated													
					345 / 014	015 / 044	045 / 074	075 / 104	105 / 134	135 / 164	165 / 164	195 / 224	225 / 254	255 / 284	285 / 314	315 / 344	All directions	
Asyout	11	0	67	1—10	20	1	4	2	2	0	0	1	19	148	146	56	399	
				11—27	6	3	1	0	0	0	0	0	0	0	4	163	90	267
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	26	4	5	2	2	0	0	1	19	152	309	146	666	
Luxor	0	2	0	1—10	29	16	1	3	7	19	125	54	54	120	179	122	729	
				11—27	0	0	0	0	0	0	0	0	0	0	0	6	7	13
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	29	16	1	3	7	19	125	54	54	120	185	129	742	
Aswan	0	0	0	1—10	151	108	9	1	2	2	4	5	4	20	57	187	550	
				11—27	66	21	0	0	0	0	0	0	0	0	2	14	91	194
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	217	129	9	1	2	2	4	5	4	22	71	278	744	
Siwa	13	7	0	1—10	77	110	58	16	6	6	8	7	11	52	133	169	653	
				11—27	11	22	0	0	0	0	0	0	0	0	0	10	28	71
				28—27	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	88	132	58	16	6	6	8	7	11	52	143	197	724	
Dakhla	0	1	9	1—10	64	17	7	3	5	6	13	15	31	86	128	173	548	
				11—27	52	15	0	0	0	0	0	0	0	0	0	1	118	186
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	116	32	7	3	5	6	13	15	31	86	129	291	734	
Kharga	4	0	9	1—10	66	20	7	3	2	0	0	0	0	0	9	67	253	427
				11—27	39	0	0	0	0	0	0	0	0	0	0	4	261	304
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	105	20	7	3	2	0	0	0	0	0	9	71	514	731
Hurghada	7	1	1	1—10	13	16	4	3	2	2	3	0	0	0	3	24	24	94
				11—27	189	109	3	0	0	0	0	0	0	0	3	54	229	587
				28—47	27	0	0	0	0	0	0	0	0	0	0	0	27	54
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	229	125	7	3	2	2	3	0	0	0	6	78	280	735
Quseir	3	10	3	1—10	182	49	9	1	2	8	10	6	4	14	46	151	482	
				11—27	170	25	0	0	0	0	0	0	0	0	0	51	246	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	352	74	9	1	2	8	10	6	4	14	46	202	728	

**Table B 1.—UPPER AIR CLIMATOLOGICAL DATA
JULY—1967**

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm.)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mersa Matruh (A) 0000 U.T.	Surface	31	* 1008mb.	1014mb.	* 1004mb.	31	22.2	24.8	18.8	31	19.8
	1000	31	97	149	63	31	22.2	24.1	20.2	31	19.7
	850	31	1503	1552	1475	31	17.2	19.9	13.3	28	3.4
	700	31	3136	3190	3095	31	9.6	13.9	6.8	3	5.5
	600	31	4398	4465	4344	31	2.8	6.9	-4.7	—	—
	500	31	5848	5926	5756	31	-5.2	-0.3	-8.5	—	—
	400	31	7569	7652	7468	31	-15.2	-12.4	-18.6	—	—
	300	27	9575	9747	9580	27	-28.7	-25.7	-31.0	—	—
	200	24	12475	12530	12347	24	-48.9	-44.7	-51.1	—	—
	150	18	14307	14358	14169	18	-61.9	-60.5	-63.7	—	—
	100	16	16732	16812	16568	16	-74.3	-71.7	-77.8	—	—
	70	15	18836	18910	18630	15	-69.2	-64.0	-72.0	—	—
	60	15	19761	19842	19558	15	-65.0	-62.1	-69.0	—	—
	50	14	20883	20972	20669	14	-59.8	-56.7	-62.7	—	—
	40	9	22307	22392	22188	9	-55.6	-53.0	-58.0	—	—
	30	8	24158	24263	24018	8	-51.0	-44.1	-54.6	—	—
	20	6	26784	26878	26652	6	-48.1	-46.1	-49.5	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 0000 U.T.	Surface	29	* 992mb.	* 995mb.	* 988mb.	29	22.6	25.6	20.6	29	18.4
	1000	29	67	103	37	—	—	—	—	—	—
	850	29	1477	1508	1442	29	19.7	24.8	16.6	19	-0.1
	700	29	3122	3164	3080	29	11.9	18.4	5.0	4	-6.8
	600	29	4395	4450	4326	29	5.2	10.4	-0.3	3	-13.3
	500	29	5862	5923	5768	29	-2.9	0.3	-7.1	3	-14.7
	400	29	7595	7660	7491	29	-13.2	-10.6	-15.9	1	-27.6
	300	29	9730	9801	9630	29	-27.9	-25.2	-30.0	—	—
	200	28	12520	12612	12425	28	-48.8	-46.5	-50.7	—	—
	150	27	14355	14458	14237	27	-62.3	-60.2	-65.7	—	—
	100	25	16769	16895	16645	25	-75.5	-69.7	-78.5	—	—
	70	19	18857	18930	18740	19	-70.6	-63.2	-75.9	—	—
	60	18	19772	19874	19637	18	-64.8	-60.1	-68.4	—	—
	50	15	20901	20997	20767	15	-60.3	-58.1	-63.8	—	—
	40	12	22311	22403	22175	12	-55.4	-52.8	-57.3	—	—
	30	8	24140	24258	24015	8	-52.4	-50.1	-54.7	—	—
	20	6	26786	26902	26684	6	-45.9	-44.2	-47.8	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan (A) 0000 U.T.	Surface	31	* 982mb.	* 985mb.	* 978mb.	31	28.0	31.2	25.4	31	5.8
	1000	31	33	62	14	—	—	—	—	—	—
	850	31	1468	1497	1430	31	24.3	29.6	20.1	26	2.0
	700	31	3131	3178	3094	31	12.9	17.7	7.6	21	-5.3
	600	30	4411	4460	4354	30	5.6	9.2	0.3	16	-7.9
	500	30	5876	5927	5815	30	-4.0	1.2	-8.3	11	-13.5
	400	29	7602	7650	7547	29	-14.5	-12.2	-15.9	5	-25.7
	300	29	9724	9770	9681	29	-28.9	-26.5	-31.3	1	-37.1
	200	29	12504	12588	12477	29	-49.7	-46.9	-51.9	—	—
	150	27	14329	14436	14262	27	-63.8	-61.5	-65.8	—	—
	100	24	16719	16852	16517	24	-77.6	-74.5	-81.0	—	—
	70	22	18788	18940	18650	22	-71.5	-66.7	-76.9	—	—
	60	20	19703	19844	19602	20	-65.8	-60.8	-70.2	—	—
	50	19	20819	20957	20706	19	-61.7	-58.5	-63.9	—	—
	40	19	22217	22347	22101	19	-57.4	-55.1	-60.7	—	—
	30	19	24052	24167	23926	19	-53.8	-50.9	-56.3	—	—
	20	12	26692	26791	26533	12	-48.2	-42.5	-52.5	—	—
	10	—	—	—	—	—	—	—	—	—	—

N = The number of case the element has been observed during the month.

* The atmospheric pressure corrected to the elevation of the radiosonde station.

Table B 1.(contd.)—UPPER AIR CLIMATOLOGICAL DATA
JULY — 1967

Station	Pressure Surface Millibar	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mersa Matruh (A) 1200	Surface	31	1008mb.	1012mb.	1004mb.	31	27.5	29.6	24.2	31	21.7
	1000	31	97	134	64	31	26.6	28.3	24.9	31	20.7
	850	31	1514	1559	1477	31	19.2	22.3	17.1	27	2.2
	700	30	3156	3202	3120	30	10.9	14.3	7.0	3	— 6.6
	600	30	4426	4486	4376	30	4.0	9.0	— 0.2	—	—
	500	30	5884	5948	5826	30	— 3.6	0.0	— 6.3	—	—
	400	29	7013	7688	7538	29	— 13.7	— 10.6	— 18.1	—	—
	300	27	9740	9799	9655	27	— 27.2	— 25.0	— 29.6	—	—
	200	20	12544	12613	12501	20	— 46.7	— 43.9	— 49.8	—	—
	150	16	14388	14459	14351	16	— 60.3	— 58.5	— 62.2	—	—
	100	13	16830	16893	16776	13	— 73.8	— 70.5	— 77.8	—	—
	70	4	18982	19050	18930	4	— 68.0	— 66.3	— 70.2	—	—
	60	4	19900	19948	19817	4	— 62.9	— 60.6	— 65.0	—	—
	50	3	21032	21096	20958	3	— 54.1	— 51.3	— 56.0	—	—
	40	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 1200 UT	Surface	30	991mb.	995mb.	988mb.	30	33.0	34.7	31.0	30	12.1
	1000	30	61	91	27	—	—	—	—	—	—
	850	30	1487	1519	1411	30	20.3	27.8	16.0	26	2.4
	700	29	3140	3190	3060	29	12.9	19.1	8.1	3	— 7.0
	600	28	4417	4474	4325	28	6.0	8.7	1.6	2	— 12.4
	500	27	5887	5950	5775	27	— 1.7	0.3	— 5.7	1	— 16.5
	400	26	7632	7698	7509	26	— 12.3	9.2	— 15.2	—	—
	300	24	9774	9875	9691	24	— 26.4	— 24.4	— 31.8	—	—
	200	22	12579	12655	12451	22	— 47.0	— 43.0	— 50.9	—	—
	150	22	14425	14530	14272	22	— 60.6	— 57.6	— 63.5	—	—
	100	21	16361	16992	16768	21	— 74.5	— 65.4	— 78.8	—	—
	70	17	18925	19060	18500	17	— 71.0	— 66.2	— 75.3	—	—
	60	15	19841	20000	19410	15	— 63.0	— 58.0	— 68.0	—	—
	50	15	20984	21161	20540	15	— 55.9	— 53.5	— 60.1	—	—
	40	12	22425	22611	21972	12	— 52.2	— 48.1	— 55.9	—	—
	30	12	24302	24503	23819	12	— 48.4	— 46.2	— 54.0	—	—
	20	7	27065	27222	26883	7	— 43.1	— 36.4	— 46.6	—	—
	10	2	31847	31984	31710	2	— 37.8	— 36.4	— 39.1	—	—
Aswan (A) 1200	Surface	28	982mb.	985mb.	979mb.	28	39.4	42.2	36.4	28	6.3
	1000	25	29	56	8	—	—	—	—	—	—
	850	23	1483	1508	1451	28	25.7	29.8	22.2	27	0.3
	700	28	3153	3191	3119	28	14.4	20.1	8.5	20	— 7.1
	600	27	4436	4487	4389	27	6.8	10.6	1.0	14	— 7.4
	500	26	5909	5969	5855	26	— 2.7	0.4	— 7.0	11	— 16.2
	400	25	7645	7725	7580	25	— 13.0	— 10.5	— 16.0	2	— 23.2
	300	23	9780	9873	9713	23	— 27.4	— 25.6	— 30.2	2	— 37.8
	200	22	12584	12699	12505	22	— 47.7	— 45.0	— 50.8	—	—
	150	22	14425	14580	14337	22	— 61.6	— 59.9	— 64.7	—	—
	100	19	16848	17012	16752	19	— 75.0	— 70.6	— 78.0	—	—
	70	14	18970	19000	18880	14	— 68.7	— 64.1	— 72.7	—	—
	60	12	19393	20076	19812	12	— 62.9	— 60.8	— 68.0	—	—
	50	11	21043	21220	20948	11	— 55.2	— 52.8	— 59.3	—	—
	40	7	22483	22512	22441	7	— 51.4	— 49.9	— 53.2	—	—
	30	7	24373	24408	24341	7	— 44.8	— 36.8	— 49.0	—	—
	20	3	27103	27167	27052	3	— 38.6	— 34.7	— 42.1	—	—
	10	—	—	—	—	—	—	—	—	—	—

N = The number of cases the element has been observed during the month.

* The atmospheric pressure corrected to the elevation of the radiosonde stations.

Table B 2.—MEAN AND EXTREME VALUES OF THE FREEZING LEVEL AND THE TROPOPAUSE.
THE HIGHEST WIND SPEED IN THE UPPER AIR

JULY—1967

Station	Freezing level									First tropopause									Highest wind speed					
	Mean			Highest			Lowest			Mean			Highest			Lowest			Altitude (gpm)	Pressure (mb.)	Speed in knots			
	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Direction (000°—300°)			
0000 U.T.	(N)	(N)	(N)	5780	503	—	4230	614	—	(N)	(N)	(N)	16630 (16)	103 (16)	—73.8 (16)	18170	79	—71.7 (16)	15140	130	—69.1 (16)	14925	135	246 79
	M. Matruh (A)	4971 (31)	558 (31)	—	5900	499	—	4200	610	—	16401 (20)	101 (20)	—76.1 (20)	17320	89	—82.1 (20)	16100	110	—75.0 (20)	9350	315	260 58		
	Helwan . . .	5316 (29)	538 (29)	—11.4 (2)	5800	512	—	4480	596	—6.3	16950 (23)	96 (23)	—79.3 (23)	17949	80	—84.0 (23)	15640	120	—74.0 (23)	1790	94	110 80		
1200 U.T.	(N)	(N)	(N)	5916	500	—	4360	606	—	(N)	(N)	(N)	15929 (6)	126 (6)	—66.6 (6)	17870	84	—73.3 (6)	10340	274	—30.7 (6)	6830	470	256 108
	M. Matruh (A)	5200 (30)	545 (30)	0.0 (2)	5980	497	—	4570	551	—	17017 (20)	98 (20)	—71.4 (20)	18570	74	—77.1 (20)	15000	138	—62.0 (20)	9540	314	180 112		
	Helwan . . .	5548 (27)	521 (27)	—	6070	494	—	4630	592	—10.2	16725 (16)	103 (16)	—74.9 (16)	17850	87	—74.5 (16)	15560	123	—70.9 (16)	17060	92	100 72		

N = The number of cases the element has been observed during the month.

Table B 3.—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES
MERSA MATRUH (A)— JULY 1967

Time	Pressure Surface (Millibar)	Wind between specified ranges of direction (000 - 360°)															Number of Calm winds	Total Number of Observations (TN)	Mean Scalar wind Speed (Knots)											
		345 / 014		615 / 044		045 / 074		075 / 104		105 / 134		135 / 164		165 / 194		195 / 224		225 / 254		255 / 284		285 / 314								
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m									
0000 U.T.	Surface	2	8	0	—	1	5	0	—	0	—	1	1	0	—	0	—	12	6	5	8	9	8	1	31	7				
	1000	4	9	1	19	0	—	0	—	0	—	1	4	0	—	0	—	2	10	12	11	9	12	0	29	11				
	850	10	15	2	17	0	—	0	—	0	—	0	—	0	—	1	16	0	—	1	12	4	22	10	17	0	28	11		
	700	1	19	3	10	1	15	0	—	0	—	0	—	0	—	1	7	1	6	2	8	8	12	5	12	0	22	11		
	600	1	22	2	10	0	—	0	—	0	—	0	—	0	—	2	10	2	6	4	20	5	19	6	14	0	22	16		
	500	0	—	0	—	0	—	1	5	0	—	0	—	0	—	1	14	0	—	6	35	5	34	3	36	0	19	24		
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	15	6	35	6	31	3	39	0	18	31		
	300	0	—	1	27	0	—	0	—	0	—	0	—	1	14	2	30	5	42	6	31	3	39	0	—	0	18	31		
	200	0	—	0	—	0	—	1	5	0	—	1	11	0	—	2	34	5	32	4	34	1	35	0	—	0	14	30		
	150	0	—	0	—	0	—	0	—	0	—	0	—	1	17	1	22	2	30	6	37	3	33	0	—	1	28	0		
	100	0	—	0	—	0	—	0	—	1	12	2	20	1	20	2	24	1	22	3	24	0	—	0	—	0	14	32		
	70	0	—	1	10	2	12	3	11	1	14	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	10	22		
	60	0	—	0	—	1	42	5	22	0	—	0	—	1	20	0	—	0	—	0	—	0	—	0	—	0	7	12		
	50	0	—	0	—	4	24	0	—	1	28	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	7	25		
	40	0	—	1	35	2	25	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	3	21		
	30	0	—	0	—	1	38	1	25	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	32		
	20	0	—	0	—	1	34	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	34		
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
1200 U.T.	Surface	10	14	2	14	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	19	17	0	31	16		
	1000	5	13	3	19	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	27	22	17	0	31	17		
	850	7	14	1	9	0	—	0	—	0	—	0	—	0	—	0	—	4	12	10	22	9	15	0	31	16				
	700	4	13	1	11	2	22	0	—	0	—	0	—	0	—	1	14	2	14	3	10	2	28	7	20	9	16	0	29	16
	600	1	12	1	11	2	22	0	—	0	—	0	—	0	—	0	—	2	23	5	16	6	30	4	20	7	22	0	28	21
	500	1	4	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	20	8	26	8	29	7	31	1	59	0	27	28
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	19	6	39	10	35	6	30	1	18	0	26	32		
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	27	7	48	11	41	1	30	0	—	0	22	41		
	200	0	—	0	—	0	—	0	—	0	—	1	23	0	—	2	19	4	32	3	38	0	—	0	—	0	14	36		
	150	0	—	0	—	0	—	0	—	1	8	0	—	1	23	0	—	2	19	4	32	3	38	0	—	0	10	30		
	100	0	—	0	—	0	—	0	—	1	20	0	—	1	14	0	—	1	21	1	13	0	—	0	—	0	4	17		
	70	0	—	1	15	0	—	0	—	1	42	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	3	19		
	60	0	—	0	—	0	—	1	38	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	1	38		
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		

N = The number of cases the element has been observed during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

Table B 3. (contd.)—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES
HELWAN (A) — JULY 1967

Time	Pressure Surface (Millibar.)	Wind between specified ranges of direction (000—360°)												Number of Calm winds	Total Number of Observations (T.N.)	Mean Scalar wind Speed (Knots)										
		345 / 014		015 / 044		045 / 074		075 / 104		105 / 134		135 / 164		165 / 194		195 / 224		225 / 254		255 / 284		285 / 314				
		N m	(ff) m	N m	(ff) m	N m	(ff) m	N m	(ff) m	N m	(ff) m	N m	(ff) m	N m	(ff) m	N m	(ff) m	N m	(ff) m	N m	(ff) m	N m	(ff) m			
0000 U.T.	Surface	15	7	2	16	0	—	1	8	0	—	0	—	0	—	0	—	0	—	0	—	11	6	0	29	7
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	8	13	6	15	2	10	0	—	0	—	1	7	0	—	0	—	2	13	5	16	5	11	0	29	13
	700	4	14	0	—	0	—	0	—	0	—	0	—	1	16	4	14	3	9	4	16	5	14	8	15	0
	600	2	10	0	—	0	—	0	—	0	—	0	—	5	21	5	17	7	20	8	18	2	18	0	29	19
	500	0	—	1	6	0	—	0	—	0	—	1	21	3	19	6	24	12	22	5	21	1	3	0	29	21
	400	0	—	0	—	0	—	0	—	1	13	0	—	8	21	7	19	12	28	1	19	0	—	0	29	23
	300	0	—	0	—	0	—	0	—	1	7	1	13	1	6	7	23	10	25	8	27	0	—	0	28	23
	200	0	—	0	—	0	—	0	—	1	9	0	—	6	19	11	26	4	29	2	24	1	20	1	13	0
	150	0	—	0	—	0	—	0	—	1	17	2	14	4	20	9	25	5	29	2	14	0	—	0	23	23
	100	0	—	0	—	0	—	1	16	2	24	6	24	6	20	1	11	0	—	0	—	0	—	0	16	21
	70	0	—	0	—	0	—	1	25	4	22	3	22	2	18	0	—	0	—	0	—	0	—	0	10	22
	60	0	—	0	—	2	28	6	22	2	28	0	—	0	—	0	—	0	—	0	—	0	—	0	10	24
	50	0	—	0	—	0	—	5	28	2	42	0	—	0	—	0	—	0	—	0	—	0	—	0	7	32
	40	0	—	1	28	0	—	3	35	1	22	0	—	0	—	0	—	0	—	0	—	0	—	0	5	31
	30	0	—	0	—	0	—	5	35	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	5	35
	20	0	—	0	—	0	—	2	22	1	33	0	—	0	—	0	—	0	—	0	—	0	—	0	3	26
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	7	13	3	11	0	—	0	—	0	—	0	—	0	—	0	—	4	10	8	11	8	12	0	30	12
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	5	10	6	12	2	14	0	—	0	—	0	—	1	10	2	8	0	—	9	14	5	12	0	30	12
	700	2	9	1	2	0	—	0	—	0	—	0	—	2	36	5	11	3	22	5	10	7	13	3	15	0
	600	1	2	0	—	0	—	1	19	1	7	0	—	1	21	5	22	3	7	8	16	8	14	1	21	0
	500	2	6	0	—	0	—	1	19	1	7	0	—	1	49	3	21	4	28	9	23	4	19	1	26	0
	400	0	—	0	—	0	—	0	—	1	16	2	32	3	13	11	28	6	30	0	—	0	—	0	23	26
	300	0	—	0	—	0	—	0	—	1	16	2	10	9	21	6	31	3	22	1	29	0	—	0	22	23
	200	0	—	0	—	0	—	0	—	1	14	2	14	2	20	4	22	6	26	3	18	1	10	1	10	0
	150	1	5	0	—	0	—	2	20	0	—	2	33	7	19	2	28	2	26	2	18	0	—	0	0	18
	100	0	—	0	—	0	—	2	24	5	23	4	25	3	24	1	13	0	—	0	—	0	—	0	0	23
	70	0	—	0	—	0	—	4	22	5	26	3	35	0	—	1	50	0	—	0	—	0	—	0	0	13
	60	0	—	0	—	0	—	2	30	6	27	0	—	0	—	0	—	0	—	0	—	0	—	0	8	27
	50	0	—	0	—	0	—	3	26	4	26	2	23	0	—	0	—	0	—	0	—	0	—	0	0	9
	40	0	—	0	—	0	—	4	30	1	20	1	35	0	—	0	—	0	—	0	—	0	—	0	0	6
	30	0	—	0	—	0	—	2	25	3	23	0	—	0	—	0	—	0	—	0	—	0	—	0	0	5
	20	0	—	0	—	0	—	3	36	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	0	3
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the element has been observed during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

**Table B 3. (contd.)—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES
ASWAN (A) — JULY 1967**

Time	Pressure Surface (Millibar.)	Wind between specified ranges of direction (000°—360°)														Number of Calm winds	Total Number of Observations (T.N.)	Mean Scalar wind Speed (Knots)									
		345		015		045		075		105		135		165		195		225		255		285					
		014	044	074	104	134	164	194	224	254	284	314	344	N m	N m	N m	N m	N m	N m	N m	N m	N m	N m	N m			
0000 U.T.	Surface	9	9	3	9	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	10	18	11	0	31	10	
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	850	6	12	4	10	2	8	2	12	1	2	0	—	0	—	2	11	2	5	8	15	4	10	0	31	11	
	700	1	9	2	5	2	9	1	14	3	9	4	12	6	13	0	—	3	10	4	14	2	12	3	5	0	
	600	2	8	4	8	2	13	1	17	2	14	5	17	0	—	1	17	4	10	7	15	0	—	2	6	0	
	500	1	2	4	10	3	14	2	10	6	13	4	17	3	14	1	11	0	—	1	13	3	11	2	8	0	
	400	2	11	4	8	3	16	7	15	5	19	5	12	1	16	1	5	0	—	0	—	1	6	0	—	0	
	300	0	—	1	7	3	22	10	22	12	15	3	17	0	—	0	—	0	—	0	—	0	—	0	29	13	
	200	0	—	0	—	0	—	14	21	10	30	4	20	0	—	0	—	0	—	0	—	0	—	0	—	28	
	150	0	—	0	—	1	15	10	32	14	35	2	24	0	—	0	—	0	—	0	—	0	—	0	—	27	
	100	0	—	0	—	0	—	4	84	19	40	1	72	0	—	0	—	0	—	0	—	0	—	0	—	24	
	70	0	—	0	—	0	—	12	26	8	38	0	—	0	—	0	—	0	—	0	—	0	—	0	—	31	
	60	0	—	0	—	4	23	11	29	2	38	0	—	0	—	0	—	0	—	0	—	0	—	0	—	29	
	50	0	—	0	—	1	34	15	33	1	23	0	—	0	—	0	—	0	—	0	—	0	—	0	—	33	
	40	0	—	0	—	1	41	13	39	0	—	1	20	0	—	0	—	0	—	0	—	0	—	0	—	38	
	30	0	—	0	—	1	46	9	43	1	30	0	—	0	—	0	—	0	—	0	—	0	—	0	—	42	
	20	0	—	0	—	0	—	2	40	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	40	
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
1200 U.T.	Surface	8	10	3	9	0	—	0	—	0	—	0	—	2	7	0	—	0	—	7	11	8	8	0	28	10	
	1000	—	—	—	—	—	—	—	—	—	—	—	—	1	15	0	—	0	—	3	13	15	11	6	12	0	
	850	2	18	0	—	0	—	0	—	2	12	3	9	2	8	0	—	4	14	5	16	6	8	1	10	11	
	700	1	4	0	—	1	9	2	12	3	9	4	19	2	11	3	13	3	14	6	12	1	5	1	3	12	
	600	2	10	2	11	2	6	0	—	1	14	4	19	2	11	3	13	2	8	3	9	1	10	0	—	26	
	500	0	—	3	10	2	10	1	7	5	8	2	17	5	14	2	8	2	8	3	9	1	10	0	—	10	
	400	2	4	2	7	4	9	9	13	3	13	2	11	1	8	0	—	0	—	1	4	0	—	0	—	24	
	300	0	—	0	—	0	—	10	18	8	18	3	13	1	10	0	—	0	—	0	—	0	—	0	—	17	
	200	0	—	1	13	0	—	8	23	11	25	2	32	0	—	0	—	0	—	0	—	0	—	0	—	25	
	150	0	—	0	—	1	26	10	31	9	38	1	25	0	—	0	—	0	—	0	—	0	—	0	—	33	
	100	0	—	0	—	0	—	6	35	8	49	1	59	0	—	0	—	0	—	0	—	0	—	0	—	44	
	70	0	—	0	—	0	—	8	43	5	48	0	—	0	—	9	0	—	0	—	0	—	0	—	0	—	45
	60	0	—	0	—	0	—	5	44	4	38	0	—	0	—	0	—	0	—	0	—	0	—	0	—	41	
	50	0	—	0	—	0	—	5	39	2	42	0	—	0	—	0	—	0	—	0	—	0	—	0	—	39	
	40	0	—	0	—	0	—	3	35	2	33	0	—	0	—	0	—	0	—	0	—	0	—	0	—	34	
	30	0	—	0	—	0	—	3	31	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	31	
	20	0	—	0	—	0	—	1	29	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	29	
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		

N = The number of cases the element has been observed during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

REVIEW OF AGRO-METEOROLOGICAL STATIONS

EL-KASR — JULY 1967

This month was slightly milder than normal. The mean daily air temperature at 2 metres above ground was below normal by 0.2°C .

The extreme maximum soil temperatures were lower than the corresponding values of last July at depths between 5 & 20 cms., and the differences ranged between 2.2°C at 5 cms. & 0.8°C at 20 cms. At deeper depths, the values were slightly higher and the differences did not exceed 0.1°C . The extreme minimum soil temperatures were higher than the corresponding values of last July by 3.5°C at 5 cms depth and slightly lower at all depths between 10 and 100 cms. with a maximum difference 0.3°C at 10 cms depth.

The mean daily pan evaporation was more by 2.26 mms than the corresponding value of last July. The total actual duration of bright sunshine was more by 4.6 hours than the corresponding value of July 1966.

TAHRIR — JULY 1967

This month was slightly milder and more humid than last July. The mean daily air temperature at 2 metres above ground was lower by 0.4°C than the corresponding value of last July and the mean daily relative humidity was higher by 5%. The month was characterized by two short heat waves. The first heat wave occurred on the 19th. The second heat wave occurred on the 26th & 27th and yielded the highest maximum air temperature for the month (37.6°C) on the 26th.

The extreme maximum soil temperatures at all depths between 5 & 100 cms. were lower than the corresponding values of last July. The differences ranged between 1.8°C at 10 cms. depth and 0.2°C at 50 cms. depth. The extreme minimum soil temperatures at all depths between 5 & 100 cms. were higher than the corresponding values of last July. The differences ranged between 4.9°C at 5 cms. depth and 0.2°C at 20 cms. depth.

The mean daily pan evaporation was less by 0.63 mms. than the corresponding value of July 1966. The total actual duration of bright sunshine was more by 5.2 hours than the corresponding value of July 1966.

BAHTIM — JULY 1967

Mild summer weather with rather high humidity prevailed most days of this month at Bahtim. The mean daily air temperature at 2 metres above ground was 25.9°C and the mean daily relative humidity was 66%. The month was characterized by two short heat waves. The first heat wave prevailed on the 2nd & 3rd and was associated with the lowest mean daily relative humidity for the month (27%) on the 2nd. The second heat wave occurred on the 26% and was associated with the highest maximum air temperature for the month (36.2°C).

GIZA — JULY 1967

This month was almost normal with respect to air temperature and relative humidity. The mean daily air temperature at 2 metres above ground was slightly (0.1°C) below normal. The mean daily relative humidity was slightly (1%) above normal. The month was characterized with three short heat waves ; the first wave on the 2nd & 3rd, the second on the 19th and the third on the 26th & 27th. The absolute maximum air temperature for the month (36.5°C) was recorded on the 19th, 26th and 27th.

The extreme maximum soil temperatures in the dry field were lower than the corresponding values of last July at all depths between 5 & 100 cms. The difference ranged between 2.7°C at 10 cms. depth and 0.4°C at 20 cms. depth. The extreme minimum soil temperature in the dry field was higher than the corresponding value of last July by 2.2°C at 5 cms. depth. At all depths between 10 & 100 cms. the values were lower than the corresponding values of last July and the maximum difference was 0.8°C at 100 cms. depth.

The mean daily pan evaporation was more by 2.36 mms, than the corresponding value of July 1966. The total actual duration of bright sunshine was more by 1.1 hour than the corresponding value of July 1966.

KHARGA — JULY 1967

This month was slightly warmer than normal. The mean daily air temperature at 2 metres above ground was 0.5°C higher than normal. The month was characterized by two heat waves. The first heat wave prevailed from the 10th till the 13th and was associated with the absolute maximum air temperature for the month (41.5°C) on the 10th. The second heat wave occurred on the 26th & 27th.

The extreme maximum soil temperature was higher than the corresponding value of last July by 1.1°C at 5 cms. depth. At all depths between 10 & 100 cms., the values were lower than last July and the differences ranged between 1.4°C at 10 cms. depth and 0.5°C at 100 cms. depth. The extreme minimum soil temperatures were lower than the corresponding values of last July at all depths apart from the 20 cms. depth where the value was higher than last July. The differences were slight and did not exceed 0.5°C at any depth.

The mean daily pan evaporation was less by 1.86 mms. than the corresponding value of July 1966. The total actual duration of bright sunshine was less by 7.9 hours than the corresponding value of July 1966.

**Table C 1.—AIR TEMPERATURE AT 2 METRES ABOVE GROUND
JULY — 1967**

STATION	Air Temperature (°C)					Mean Duration in hours of daily air temperature above the following values											
	Mean Max.	Mean Min.	Mean of the day	Night time mean	Day time mean	—5°C	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C	
El Ksar . . .	28.6	20.1	24.7	22.5	26.4	24.0	24.0	24.0	24.0	24.0	22.4	11.6	0.0	0.0	0.0	0.0	
Tahrir	33.8	20.3	26.3	22.8	29.0	24.0	24.0	24.0	24.0	24.0	23.6	12.7	6.6	0.1	0.0	0.0	
Bahtim	33.5	19.0	25.9	22.0	29.7	24.0	24.0	34.0	24.0	24.0	21.0	12.0	7.0	0.0	0.0	0.0	
Giza	34.1	21.2	27.2	24.5	29.5	24.0	24.0	24.0	24.0	24.0	24.0	14.7	7.2	0.2	0.0	0.0	
Kharga	38.9	24.3	31.9	28.8	34.7	24.0	24.0	24.0	24.0	24.0	24.0	22.8	14.6	7.8	0.3	0.0	

**Table C 2. EXTREME VALUES OF AIR TEMPERATURE AT 2 METRES ABOVE GROUND,
ABSOLUTE MINIMUM AIR TEMPERATURE AT 5cms ABOVE GROUND OVER
DIFFERENT FIELDS**

JULY — 1967

STATION	Max. Temp. at 2 metres (°C)				Min. Temp. at 2 metres (°C)				Min. Temp. at 5 cms. above (°C)			
	Highest		Lowest		Highest		Lowest		Dry soil		Grass	
	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date
El Ksar	30.4	26	27.5	2	23.8	21	16.6	12	13.8	12	—	—
Tahrir	37.6	26	31.9	5, 6	23.1	27	17.4	12	15.9	12	—	—
Bahtim	36.2	26	32.4	, 29	21.8	27	15.9	12, 13	12.2	13	—	—
Giza	36.5	19, 26, 27	32.1	14	22.8	28	19.2	13, 30	15.2	30	14.2	30
Kharga	41.5	10	36.0	5	26.8	18	20.0	10	17.4	7	—	—

Table C 3.—(SOLAR+SKY) RADIATION, DURATION OF BRIGHT SUNSHINE, RELATIVE HUMIDITY AND, VAPOUR PRESSURE AT 2 METRES ABOVE GROUND, EVAPORATION AND RAINFALL

JULY — 1967

STATION	(Solar + Sky Radiation gm. cal/cm ²)	Duration of Bright Sunshine (hours)			Relative Humidity			Vapour pressure (mms)				Evaporation (mms)		Rainfall (mms)				
		Total Actual monthly	Total Possible monthly	%	Mean of day	1200 U.T.	Lowest	Date	Mean of day	1200 U.T.	Highest	Date	Piche	Pan class A	Total Amount Monthly	Max. Fall in one day	Date	
El Ksar	578.4	392.7	434.0	90	78	68	58	23	18.3	19.1	21.7	19	13.7	2	5.9	12.19	0.0	0.0
Tahrir	681.1	388.9	431.3	90	72	47	31	26	17.9	17.2	22.1	18	9.6	1	9.0	11.06	0.0	0.0
Bahtim	—	365.8	429.9	85	66	41	27	2	15.8	15.1	20.6	18, 19	11.1	2	10.4	10.95	0.0	0.0
Giza	662.6	365.2	429.9	85	60	38	24	2	15.6	14.2	19.3	18, 19, 20	9.6	2	10.9	14.22	0.0	0.0
Kharga	579.0	383.8	418.9	92	24	16	8	12, 13	8.1	7.6	14.4	16	3.8	12	30.4	21.96	0.0	0.0

**Table C 4. EXTREME SOIL TEMPERATURE AT DIFFERENT DEPTHS
IN DIFFERENT FIELDS (cms)**
JULY — 1967

STATION	High heat (H) Lower (L)	Extreme soil temperature (°C) in dry field at different depths (cms.)								Extreme soil temperature (°C) in grass field at different depths (cms.)							
		2	5	10	20	50	100	200	300	2	5	10	20	50	100	200	300
El Ksar	H	43.5	39.2	34.5	30.0	28.3	26.3	23.9	—	—	—	—	—	—	—	—	—
	L	26.1	24.1	23.4	25.7	26.5	25.1	22.8	—	—	—	—	—	—	—	—	—
Tahrir	H	54.1	47.1	41.4	36.4	33.2	31.4	28.9	27.2	—	—	—	—	—	—	—	—
	L	28.0	28.4	28.1	30.0	31.1	30.4	27.6	26.0	—	—	—	—	—	—	—	—
Bahtim	H	54.4	42.1	37.9	33.0	30.7	28.3	25.2	—	—	—	—	—	—	—	—	—
	L	29.0	27.8	28.4	30.0	28.5	26.1	23.7	—	—	—	—	—	—	—	—	—
Giza	H	60.1	45.0	37.7	34.6	32.7	30.4	26.9	25.2	35.4	31.8	30.1	28.3	27.2	—	—	—
	L	30.1	28.4	29.4	31.2	31.5	29.0	25.6	24.2	23.7	23.4	23.9	25.4	25.8	—	—	—
Kharga	H	57.0	51.8	41.4	36.6	34.1	32.5	30.2	28.5	—	—	—	—	—	—	—	—
	L	22.5	25.6	30.1	32.8	32.9	31.3	29.0	27.7	—	—	—	—	—	—	—	—

**Table C 5. SURFACE WIND
JULY — 1967**

STATION	Wind Speed m/sec at 1½ metres			Days with surface wind speed at (10 metres)								Max. Gust 10 metres	
	Mean of the day	Night time mean	Day time mean	≥ 10 (knots)	≥ 15 (knots)	≥ 20 (knots)	≥ 25 (knots)	≥ 30 (knots)	≥ 35 (knots)	≥ 40 (knots)	Value (knots)	Date	
El Ksar	4.4	3.3	5.5	—	—	—	—	—	—	—	—	—	—
Tahrir	2.7	1.8	3.7	31	12	0	0	0	0	0	25	5	
Bahtim	2.6	1.9	3.4	—	—	—	—	—	—	—	—	—	—
Giza	2.9	2.2	3.5	31	19	0	0	0	0	0	25	22	
Kharga	4.5	3.1	5.8	31	27	12	2	0	0	0	33	18	

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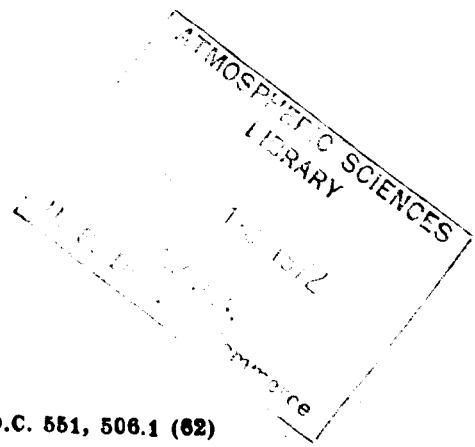
THE ARAB REPUBLIC OF EGYPT

MONTHLY WEATHER REPORT

VOLUME 10

NUMBER

AUGUST, 1967



THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

PUBLICATIONS OF THE METEOROLOGICAL AUTHORITY OF THE ARAB REPUBLIC OF EGYPT—CAIRO

In fulfilment of its duties, the Egyptian Meteorological Authority issues several reports and publications on weather, climate and agro-meteorology. The principal publications are described on this page.

Orders for publications should be addressed to :

"Chairman of the Board of Directors, Meteorological Authority, Kubri-el-Qubbeh — CAIRO".

THE DAILY WEATHER REPORT

This report is issued daily by the Meteorological Authority since the year 1901. It includes surface and upper air observations carried out by the relevant networks of the Republic at the principal hours of observations.

As from January 1968 this report was revised to include a condensed representative selection of surface and upper air observations besides the 1200 U.T. surface & 500 mb charts.

As from 1st January 1972, the Daily Weather Report will not be issued or distributed because it does not serve no longer any good purpose as it used to be in the past. The Meteorological Authority is ready to supply the recipients of the Report with any information used to be included in it, if they so desire.

THE MONTHLY WEATHER REPORT

First issued in 1909, the Monthly Weather Report served to give a brief summary of the weather conditions that prevailed over Egypt during the month, with a table showing the mean values for few meteorological elements and their deviations from the normal values. From 1954 to 1957 this report was in a rapid state of development and extension resulting into a voluminous report on January 1958 giving surface, upper air, and agro-meteorological data for Egypt.

As from January 1964, the Monthly Weather Report was pressed to give climatological data for a representative selection of synoptic stations.

THE AGRO-METEOROLOGICAL ABRIDGED MONTHLY REPORT

Gives a review of weather experienced in the agro-meteorological stations of Egypt as well as monthly values of certain elements.

THE ANNUAL REPORT

This report gives annual values and statistics for the various meteorological elements, together with a summary of the weather conditions that prevailed during all months of the year.

CLIMATOLOGICAL NORMALS FOR EGYPT

A voluminous edition was issued in March 1968 which brings normals and mean values up till 1960.

METEOROLOGICAL RESEARCH BULLETIN

First issued in January 1969 on a bi-annual basis. It includes research works carried out by members of staff of "The Meteorological Institute for Research and Training" and the Operational Divisions of the Meteorological Authority.

TECHNICAL NOTES

As from October 1970, the Meteorological Authority started to issue a new series of publications in the form of Technical Notes (non periodical) on subjects related to studies and applications of meteorology in different fields for the benefit of personnel working in these fields.



THE ARAB REPUBLIC OF EGYPT

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THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

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GENERAL SUMMARY OF WEATHER CONDITIONS

AUGUST 1967

Normal summer weather, rather humid in the northern and central parts and dry in the southern parts, Early morning low stratus and mist over Delta, Canal and Cairo areas.

GENERAL DESCRIPTION OF WEATHER

The prevailing weather this month was stable summer weather : generally mild & humid in the northern parts, hot & rather humid in the central parts, excessively hot & dry in the southern parts. Early morning low clouds with scattered mist developed frequently over scattered parts in Delta, Canal and Cairo areas.

PRESSURE DISTRIBUTION

The outstanding features of pressure distribution over the surface maps during this month were :

- The Atlantic anticyclone.
- Deep depressions (or troughs) passing eastwards through Central Europe.
- Weak high pressure over Central Mediterranean area & Libya.
- The complex monsoon low pressure system over Iraq, the Arabian gulf, Arabia & North Sudan.

During this month the barometric pressure in Egypt experienced seven falls round the periods : (1st-2nd), (4th-7th), (10th-12th), (15th-16th), (18th-20th), (22nd-24th) & (27th-28th) respectively. These pressure falls were due to the westward elongation of the Iraq monsoon trough through East Mediterranean, apart from the third pressure fall (during the period 10th to 12th) which was due to the northwestward elongation of the Iraq monsoon trough through Asia Minor & Greece.

These elongations were favoured by the transit of depressions (or troughs) north of the Black Sea.

During the rest periods of the month, the barometric pressure in Egypt experienced consecutive rises and high pressure established over Central and East Mediterranean.

The outstanding features of pressure distribution over the 700 & 500 mb. upper charts were :

— Two deep low pressure systems : one over North Atlantic and the other over North Urasia.

— Secondary lows (or troughs) passing through middle latitudes (between 30 & 45°N) and traversing East Mediterranean & Egypt round the 3, 6, 17, 20, 23, & 30th.

— High pressure belt over the subtropical latitudes south of latitude 30°N.

SURFACE WIND

Light to moderate NWly winds prevailed during this month in general. Winds became fresh during few days over few scattered localities mainly in the Red Sea & Western Desert districts. Calms were frequent most of night & early morning intervals in scattered localities.

TEMPERATURE

Maximum temperature showed small variability during this month. It was slightly above normal most days of the month in the northern & central parts where its values ranged in general between 29° & 32°C and between 34° & 38°C respectively.

In the southern parts maximum temperature was slightly below normal during the first & fourth weeks and slightly above normal the rest of the month. Its values ranged generally between 39° & 43°C.

The absolute maximum temperature was 44.3°C reported at Luxor on the 17th and Aswan on the 18th.

Minimum temperature was slightly above normal most days of the month in the northern & central parts where its values ranged generally between 19° & 24°C. In the

southern parts minimum temperature was slightly below normal most days of the month and its values ranged in general between 22° & 26°C.

The absolute minimum temperature was 14.8°C reported at Borg El Arab on the 13th.

PRECIPITATION

This month — as usual — was completely rainless all over the Republic.

Cairo, January 1972

Chairman (M. F. TAHA)
Board of Directors

SURFACE DATA

**Table A 1. — MONTHLY VALUES OF THE ATMOSPHERIC PRESSURE, AIR TEMPERATURE,
RELATIVE HUMIDITY, BRIGHT SUNSHINE DURATION & PICHE EVAPORATION.**

AUGUST — 1967

STATION	Atmospheric Pressure (mba) M.S.L		Air Temperature °C								Relative Humidity %		Bright Sunshine Duration (Hours)			Piche Evap. (mm) Mean	
	Mean	D.F. Normal or Average	Maximum		Minimum		Dry Bulb		Wet Bulb		Mean	D.F. Normal or Average	Total Actual	Total Possible	%		
			(A) Mean	D.F. Normal or Average	(B) Mean	D.F. Normal or Average	A+B 2	Mean	D.F. Normal or Average	Mean							
Sallum	1010.3	0.0	31.2	+0.1	22.5	+0.9	26.8	26.6	+0.3	22.4	+0.5	68	+ 2	—	—	7.7	
Mersa Matruh . (A)	1009.8	-0.3	30.2	+0.3	20.8	-0.3	25.5	25.5	0.0	22.2	+0.4	74	+ 2	—	—	7.0	
Alexandria . . (A)	1009.4	+0.6	31.4	+0.8	23.2	+0.4	27.3	26.6	-0.1	22.9	-0.1	72	0	371.0	411.1	5.7	
Port Said . . . (A)	1007.9	-0.1	31.0	+0.2	23.8	-1.1	27.4	27.1	-0.2	23.3	-0.4	71	- 1	363.8	411.1	6.0	
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Tanta	1007.8	0.0	31.4	-0.2	21.0	-1.5	27.7	26.7	-0.2	22.1	+0.1	66	+ 2	353.0	410.6	5.1	
Cairo (A)	1008.3	-0.2	34.7	0.0	22.0	+0.2	28.4	27.9	+0.2	21.7	-0.1	56	0	—	—	16.1	
Fayoum	1007.5	-0.5	37.1	+0.6	21.4	-0.1	29.2	28.9	-0.1	21.9	+0.6	52	+ 4	—	—	8.3	
Minya (A)	1007.4	0.0	37.0	+0.6	19.0	-0.9	28.3	28.0	-0.3	21.0	+0.2	51	+ 1	379.8	406.7	10.4	
Asyout (A)	1007.5	+0.5	36.7	-0.1	22.9	+0.5	29.8	30.0	-0.4	20.0	+0.2	36	+ 1	—	—	18.9	
Luxor (A)	1006.3	+1.2	40.3	-0.7	22.8	-0.8	31.6	32.1	-0.8	19.5	-0.5	26	0	—	—	13.4	
Aswan (A)	1006.3	-1.2	40.6	-0.7	13.8	-1.4	32.2	33.1	-0.7	18.1	-0.3	16	0	—	—	23.9	
Siwa	1009.5	-0.3	37.5	-0.2	21.8	+1.1	29.6	30.0	+0.2	19.7	0	34	- 2	—	—	14.6	
Bahariya	1008.3	+0.1	37.9	+1.1	22.6	+1.8	30.2	30.6	+1.0	19.8	0	32	- 4	—	—	12.1	
Farafra	1009.6	+0.2	36.7	-0.8	24.2	+0.1	29.0	30.0	+0.1	18.4	+0.5	27	+ 2	—	—	19.5	
Dakhla	1008.6	+1.7	38.7	-0.1	21.0	-1.8	29.8	30.5	-0.5	17.2	-0.7	20	- 3	—	—	21.7	
Kharga	1007.1	+0.5	40.0	+0.6	22.7	-0.1	31.3	32.2	+0.3	17.3	-1.8	20	- 6	378.8	403.3	22.9	
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Hurghada	1005.7	+1.2	34.2	-1.0	24.0	-1.2	29.1	29.4	-0.7	21.4	-0.7	46	- 2	—	—	16.6	
Quseir	1006.5	+1.5	32.8	-0.9	25.7	-1.2	29.2	29.7	-0.6	22.3	-0.1	50	+ 3	—	—	16.0	

Table A2.— MAXIMUM AND MINIMUM AIR TEMPERATURES

AUGUST — 1967

Station	Maximum Temperature °C								Mean	D. From Normal	Minimum Temperature °C									
	Highest	Date	Lowest	Date	No. of Days with Max-Temp.							Highest	Date	Lowest	Date	No. of Days with Min. Temp.				
					> 25	> 30	> 35	> 40	> 45		< 10					< 5	< 0	< -5		
Sallum	39.0	15	29.0	16	31	21	1	0	0	21.7	—	24.0	16	20.8	12	0	0	0	0	
Mersa Matruh (A)	33.8	13	29.2	26	31	16	0	0	0	—	—	24.1	17	18.5	27	0	0	0	0	
Alexandra (A)	33.2	16	29.2	27	31	29	0	0	0	—	—	24.8	*	19.3	13	0	0	0	0	
Port Said (A)	34.0	7	29.0	23	31	20	0	0	0	24.5	—	25.7	23	23.2	*	0	0	0	0	
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Tanta	36.4	12	31.6	23	31	31	11	0	0	—	—	22.7	19, 21	19.2	1, 2	0	0	0	0	
Cairo (A)	37.6	13	31.7	23	31	31	14	0	0	—	—	24.0	21	19.9	30	0	0	0	0	
Fayoum	40.3	13	34.0	23	31	31	28	2	0	19.8	—	23.4	18	19.6	5	0	0	0	0	
Minya (A)	42.4	17	33.7	23	31	31	27	1	0	18.0	—	22.7	18	17.6	1	0	0	0	0	
Assyout (A)	40.5	17	34.0	23, 24	31	31	28	1	0	21.3	—	24.5	3	21.5	*	0	0	0	0	
Luxor (A)	44.3	17	36.7	24	31	31	31	15	0	17.2	—	24.8	18	20.9	9	0	0	0	0	
Aswan (A)	44.3	18	36.8	24	31	31	31	18	0	—	—	28.4	17	21.3	26	0	0	0	0	
Siwa	42.4	14	34.1	28	31	31	29	4	0	20.3	—	25.0	30	19.3	29	0	0	0	0	
Bahariya	42.0	16	35.2	28	31	31	31	5	0	20.3	—	25.0	9, 17, 18	20.5	30	0	0	0	0	
Farafra	41.4	16	35.3	23	31	31	31	5	0	20.6	—	24.7	12	18.4	28	0	0	0	0	
Dakhla	42.6	17	36.3	27	31	31	31	8	0	—	—	25.8	18	17.7	7	0	0	0	0	
Kharga	43.8	17	37.2	24	31	31	31	11	0	19.9	—	28.2	10	19.3	29	0	0	0	0	
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Hurgahada	37.3	14	31.3	1, 24	31	31	8	0	0	22.5	—	26.2	15, 18, 27	20.9	17	0	0	0	0	
Quseir	36.0	12	30.5	1	31	31	1	0	0	23.8	—	27.5	15, 21	23.1	1, 8	0	0	0	0	

* More than 3 bays

Table A 3.—SKY COVER AND RAINFALL

AUGUST — 1967

Station	Mean Sky Cover Oct.					Rainfall mms.											
	00		06		12	18	Daily	Total	D. From	Max. Fall in one day		Number of Days with Amount of Rain					
	U.T.	U.T.	U.T.	U.T.	Mean		Amount	Normal	Amount	Date	<0.1	≥0.1	≥1.0	≥5.0	≥10	≥25	≥50
Sallum (A)	2.2	0.4	0.7	0.4	0.8		0.0	0.0	0.0	—	0	0	0	0	0	0	0
Mersa Matruh (A)	0.6	1.7	0.6	1.2	0.8		0.0	0.0	0.0	—	0	0	0	0	0	0	0
Alexandria (A)	1.6	3.1	1.9	1.7	1.7		0.0	-0.4	0.0	—	0	0	0	0	0	0	0
Port Said (A)	—	1.6	0.1	0.0	—		0.0	0.0	0.0	—	0	0	0	0	0	0	0
El Arish	—	—	—	—	—		—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—		—	—	—	—	—	—	—	—	—	—	—
Tanta	0.5	2.2	0.4	0.0	0.7		0.0	0.0	0.0	—	0	0	0	0	0	0	0
Cairo (A)	1.1	3.0	0.4	0.0	1.2		0.0	—tr.	0.0	—	0	0	0	0	0	0	0
Fayoum	—	0.9	0.3	0.5	—		0.0	0.0	0.0	—	0	0	0	0	0	0	0
Minya (A)	0.0	0.2	0.1	0.0	0.0		0.0	0.0	0.0	—	0	0	0	0	0	0	0
Asyout (A)	0.1	0.1	0.3	0.2	0.2		0.0	0.0	0.0	—	0	0	0	0	0	0	0
Luxor (A)	0.0	0.4	0.5	0.2	0.3		0.0	0.0	0.0	—	0	0	0	0	0	0	0
Aswan	0.4	0.8	1.2	0.9	0.8		0.0	—tr.	0.0	—	0	0	0	0	0	0	0
Siwa	0.1	0.1	0.1	0.0	0.5		0.0	0.0	0.0	—	0	0	0	0	0	0	0
Bahariya	0.2	0.3	0.3	0.2	0.2		0.0	0.0	0.0	—	0	0	0	0	0	0	0
Farafra	—	0.0	0.2	0.1	—		0.0	0.0	0.0	—	0	0	0	0	0	0	0
Dakhla	0.0	0.1	0.3	0.1	0.1		0.0	0.0	0.0	—	0	0	0	0	0	0	0
Kharga	0.2	0.1	0.3	0.0	0.2		0.0	—tr.	0.0	—	0	0	0	0	0	0	0
Tor	—	—	—	—	—		—	—	—	—	—	—	—	—	—	—	—
Hughad	0.0	0.3	0.2	0.2	0.1		0.0	0.0	0.0	—	0	0	0	0	0	0	0
Quseir	0.0	0.3	0.5	0.3	0.3		0.0	0.0	0.0	—	0	0	0	0	0	0	0

Table A 4. — DAYS OF OCCURRENCE OF MISCELLANEOUS WEATHER PHENOMENA.

AUGUST — 1967

TABLE A 5.—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES

AUGUST — 1967

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated													All directions
					345	015	045	075	105	135	165	195	225	255	285	315		
					/	/	/	/	/	/	/	/	/	/	/	/		
					014	044	074	104	134	164	194	224	254	284	314	344		
Sallum	6	0	0	1—10	78	161	93	9	8	0	0	0	4	9	41	173	576	
				11—27	18	16	3	0	0	0	0	0	0	0	0	4	121	162
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	96	171	96	9	8	0	0	0	4	9	45	294	738	
Mersa Matruh (A)	5	0	0	1—10	74	68	8	1	2	3	0	0	7	101	122	77	563	
				11—27	87	24	0	0	0	0	0	0	0	0	0	5	60	176
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	261	92	8	1	2	3	0	0	7	101	127	137	739	
Alexandria (A)	5	0	1	1—10	105	11	4	1	1	8	12	4	7	10	154	324	641	
				11—27	2	0	0	0	0	0	0	0	0	0	2	39	54	97
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	107	11	4	1	1	8	12	4	7	12	193	378	738	
Port Said . . .	1	2	0	1—10	158	8	3	1	9	1	3	9	44	142	75	198	651	
				11—27	23	0	0	0	0	0	0	0	0	2	7	58	90	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	181	8	3	1	9	1	3	9	44	144	82	256	741	
Tanta	46	0	0	1—10	18	6	0	2	2	1	34	99	118	121	207	90	698	
				11—27	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	18	6	0	2	2	1	34	99	118	121	207	90	698	
Cairo (A)	46	0	8	1—10	132	69	28	14	4	0	0	6	6	38	140	192	629	
				11—27	19	4	0	0	0	0	0	0	0	0	9	29	61	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	151	73	28	14	4	0	0	6	6	38	149	221	690	
Fayoum	13	6	0	1—10	300	254	19	3	0	2	2	2	2	4	22	38	77	723
				11—27	1	1	0	0	0	0	0	0	0	0	0	0	0	2
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	301	253	19	3	0	2	2	2	2	4	22	38	77	725
Minya	16	67	0	1—10	328	90	0	0	0	7	0	1	4	5	12	191	638	
				11—27	12	3	0	0	0	0	0	0	0	0	0	8	23	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	340	93	0	0	0	7	0	1	4	5	13	199	661	
Asyout	50	0	0	1—10	25	15	1	2	3	5	1	2	33	201	169	139	596	
				11—27	6	0	0	0	0	0	0	0	0	0	1	50	41	98
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	31	15	1	2	3	5	1	2	33	202	219	180	694	

TABLE A 5. (contd.)—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES

AUGUST — 1967

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated												All directions	
					345	015	045	075	105	135	165	195	225	255	285	315		
					/	/	/	/	/	/	/	/	/	/	/	/		
					014	044	074	104	134	164	194	224	254	284	314	344		
Luxor	0	0	0	1—10	53	30	12	14	17	29	109	76	41	117	149	96	743	
				11—27	0	0	0	0	0	0	0	0	0	0	0	1	0	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	53	30	12	14	17	29	109	76	41	117	150	96	744	
Aswan	21	2	0	1—10	94	92	16	1	3	2	12	10	22	57	121	157	587	
				11—27	24	6	0	0	0	0	1	3	10	12	42	36	134	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	118	98	16	1	3	2	13	13	32	69	163	193	721	
Siwa	10	18	0	1—10	82	142	52	19	11	3	9	6	17	74	142	146	703	
				11—27	4	3	2	0	0	0	0	0	0	0	2	0	0	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	86	145	54	19	11	3	9	6	17	24	144	148	716	
Dakhla	7	7	1	1—10	78	35	18	2	2	7	9	32	67	84	124	218	676	
				11—27	11	2	1	0	0	0	0	0	0	0	3	36	53	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	89	37	19	2	2	7	9	32	67	84	127	254	729	
Kharga	12	3	0	1—10	98	59	22	13	12	8	11	10	12	32	116	273	657	
				11—27	18	6	0	0	0	0	0	0	0	0	15	39	72	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	116	59	22	13	12	8	11	10	12	32	131	312	729	
Hurghada	35	2	1	1—10	14	25	40	20	6	26	32	4	7	15	88	68	345	
				11—27	81	88	14	0	0	0	0	0	0	0	9	56	113	361
				28—47	0	0	0	0	0	0	6	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	95	113	54	20	6	26	32	4	7	24	144	181	706	
Quseir	5	37	4	1—10	53	72	42	25	23	24	25	24	40	68	66	84	546	
				11—27	60	56	6	1	0	0	0	0	0	0	0	29	152	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	113	128	48	26	23	24	25	24	40	68	66	113	698	

UPPER AIR CLIMATOLOGICAL DATA

Table B1 — MONTHLY MEANS AND MONTHLY ABSOLUTE HIGHER & LOWER VALUES OF ALTITUDE, AIR TEMPERATURE & DEW POINT AT STANDARD AND SELECTED PRESSURE SURFACES

AUGUST—1967

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Marsa Matruh (A) 0000 U.T.	Surface . . .	29	1010m.b.	1013m.b.	1006m.b.	29	23.0	25.5	20.4	29	20.5
	1000 . . .	29	113	139	72	29	23.1	24.8	20.5	29	20.3
	850 . . .	29	1523	1653	1497	29	18.4	22.9	13.5	26	2.6
	700 . . .	29	3157	3196	3100	29	9.5	14.4	4.7	5	— 8.2
	600 . . .	28	4421	4472	4389	28	2.9	8.9	— 0.6	—	—
	500 . . .	29	5672	5932	5832	29	— 5.2	— 1.5	— 8.0	—	—
	400 . . .	27	7634	7651	7555	27	— 16.3	— 11.7	— 20.5	—	—
	300 . . .	25	9704	9802	9640	25	— 30.0	— 25.7	— 33.5	—	—
	200 . . .	20	12474	1264.9	12396	20	— 50.0	— 48.0	— 52.4	—	—
	150 . . .	17	14300	14445	14261	17	— 63.3	— 61.0	— 64.8	—	—
	100 . . .	12	16705	16775	16638	12	— 73.2	— 70.3	— 76.5	—	—
	70 . . .	9	18840	18900	18780	9	— 66.5	— 62.8	— 67.9	—	—
	60 . . .	9	19776	19816	19730	9	— 62.8	— 60.0	— 65.2	—	—
	50 . . .	8	20912	20944	20869	8	— 59.4	— 58.0	— 62.2	—	—
	40 . . .	8	22320	22368	22273	8	— 55.9	— 53.4	— 60.1	—	—
	30 . . .	6	24186	24214	24151	6	— 51.8	— 49.0	— 55.3	—	—
	20 . . .	3	26802	26839	26782	3	— 48.8	— 47.1	— 50.6	—	—
	10 . . .	—	—	—	—	—	—	—	—	—	—
Helwan 0000 U.T.	Surface . . .	30	* 992m.b.	* 996m.b.	* 989m.b.	30	23.9	28.4	21.4	30	19.2
	1000 . . .	30	72	114	39	—	—	—	—	—	—
	850 . . .	30	1491	1518	1463	30	20.0	24.2	16.4	25	2.8
	700 . . .	30	3130	3168	3098	30	10.2	13.7	7.1	4	— 8.2
	600 . . .	28	4396	4441	4359	28	4.5	6.8	1.5	—	—
	500 . . .	28	5852	5908	5822	28	— 2.8	0.9	— 6.5	—	—
	400 . . .	28	7592	7632	7530	28	— 14.2	— 10.7	— 20.1	—	—
	300 . . .	28	9714	9771	9624	28	— 28.9	— 25.8	— 34.2	—	—
	200 . . .	27	12492	12575	12345	27	— 50.0	— 47.3	— 51.5	—	—
	150 . . .	27	14316	14415	14100	27	— 63.8	— 61.6	— 70.8	—	—
	100 . . .	25	16721	16833	16463	25	— 75.3	— 71.0	— 78.6	—	—
	70 . . .	22	18825	18930	18600	22	— 68.0	— 60.1	— 74.9	—	—
	60 . . .	22	19755	19860	19582	22	— 63.4	— 59.2	— 68.0	—	—
	50 . . .	21	20883	21000	20731	21	— 59.2	— 56.3	— 65.6	—	—
	40 . . .	19	22292	22419	22154	19	— 56.1	— 53.5	— 58.7	—	—
	30 . . .	17	24137	24280	24016	17	— 52.8	— 50.5	— 55.4	—	—
	20 . . .	12	26756	26895	26660	12	— 48.1	— 45.8	— 50.3	—	—
	10 . . .	1	31494	—	—	1	— 42.4	—	—	—	—
Aswan (A) 0000 U.T.	Surface . . .	30	* 984m.b.	* 987m.b.	* 982m.b.	30	27.8	31.2	24.5	30	4.9
	1000 . . .	30	50	80	33	—	—	—	—	—	—
	850 . . .	30	1435	1517	1466	30	23.1	26.9	19.9	30	2.3
	700 . . .	30	3134	3174	3094	30	9.8	14.0	4.3	21	— 4.2
	600 . . .	30	4401	4454	4354	30	3.0	8.5	— 5.3	11	— 5.1
	500 . . .	30	5864	5917	5816	30	— 2.6	3.7	— 5.4	2	— 18.9
	400 . . .	29	7595	7654	7536	29	— 14.2	— 10.6	— 17.8	3	— 27.8
	300 . . .	28	9643	9798	9606	28	— 29.5	— 27.0	— 32.4	2	— 35.2
	200 . . .	28	12489	12596	12383	28	— 50.6	— 47.1	— 52.5	—	—
	150 . . .	27	14310	14437	14189	27	— 64.3	— 60.7	— 66.6	—	—
	100 . . .	26	18701	16861	16565	26	— 77.3	— 73.6	— 80.4	—	—
	70 . . .	24	18791	18950	18610	24	— 69.3	— 64.5	— 82.3	—	—
	60 . . .	21	19719	19885	19562	21	— 63.8	— 62.0	— 66.4	—	—
	50 . . .	21	20844	21008	20690	21	— 60.7	— 57.6	— 63.1	—	—
	40 . . .	19	22247	22420	22070	19	— 57.1	— 55.0	— 60.5	—	—
	30 . . .	15	24091	24224	23902	15	— 53.5	— 51.4	— 56.8	—	—
	20 . . .	8	26752	26909	26540	8	— 48.4	— 45.2	— 51.8	—	—
	10 . . .	—	—	—	—	—	—	—	—	—	—

* — The number of cases the element has been observed during the month.

* The atmospheric pressure corrected to the elevation of the radiosonde station.

UPPER AIR CLIMATOLOGICAL DATA

Table B1 (contd).—MONTHLY MEANS AND MONTHLY ABSOLUTE HIGHER & LOWER
VALUES OF ALTITUDE, AIR TEMPERATURE & DEW POINT AT
STANDARD AND SELECTED PRESSURE SURFACES

AUGUST — 1967

Station	Pressure Surface Millibar	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Morsa Matruh 1200 UT.	Surface . . .	31	1010m.b.	1013m.b.	1006m.b.	31	28.9	33.0	28.0	31	22.0
	1000 . . .	31	116	142	82	31	27.8	30.0	26.3	31	20.9
	850 . . .	31	1537	1566	1402	31	20.0	24.6	16.0	29	3.7
	700 . . .	31	3180	3221	3148	31	10.9	13.6	6.2	6	— 3.9
	600 . . .	28	4446	4491	4411	28	5.2	6.4	2.1	—	—
	500 . . .	27	5905	5939	5865	27	— 4.2	5.8	— 6.4	—	—
	400 . . .	27	7634	7662	7575	27	— 14.1	— 10.2	— 18.2	—	—
	300 . . .	26	9763	9884	9685	26	— 18.4	— 25.4	— 32.0	—	—
	200 . . .	18	12541	12616	12439	18	— 48.3	— 46.0	— 51.0	—	—
	150 . . .	18	14404	14554	14281	18	— 61.0	— 51.9	— 65.2	—	—
	100 . . .	8	16750	16876	16449	8	— 73.4	— 69.5	— 76.4	—	—
	70 . . .	4	18938	19000	18820	4	— 66.0	— 64.5	— 67.5	—	—
	60 . . .	4	19867	19948	19772	4	— 60.8	— 57.0	— 64.3	—	—
	50 . . .	4	21008	21095	20932	4	— 57.6	— 54.5	— 61.1	—	—
	40 . . .	2	22395	22412	22378	2	— 52.0	— 51.3	— 52.8	—	—
	30 . . .	2	24272	24282	24262	2	— 48.7	— 47.7	— 50.4	—	—
	20 . . .	2	26976	26984	26967	2	— 41.0	— 41.0	— 41.1	—	—
	10 . . .	—	—	—	—	—	—	—	—	—	—
Helwan 1200 U.T.	Surface . . .	29	992m.b.	995m.b.	988m.b.	29	34.4	39.3	30.9	29	11.6
	1000 . . .	29	66	98	29	—	—	—	—	—	—
	850 . . .	29	1506	1533	1480	29	22.1	26.4	14.9	2	3.8
	700 . . .	29	3155	3196	3110	29	12.1	15.2	9.1	2	— 4.6
	600 . . .	27	4427	4468	4374	27	5.9	8.9	4.1	—	—
	500 . . .	27	5898	5942	5843	27	— 1.5	1.2	— 6.1	—	—
	400 . . .	27	7612	7683	7582	27	— 12.4	— 9.8	— 15.0	—	—
	300 . . .	25	9777	9822	9698	25	— 27.1	— 24.7	— 30.0	—	—
	200 . . .	24	12578	12645	12494	24	— 47.8	— 45.0	— 51.0	—	—
	150 . . .	20	14422	14496	14322	20	— 61.2	— 58.8	— 64.5	—	—
	100 . . .	20	16859	16935	16729	20	— 73.6	— 70.3	— 74.1	—	—
	70 . . .	18	18986	19080	18840	18	— 67.1	— 62.0	— 71.4	—	—
	60 . . .	18	19915	20016	19771	18	— 61.0	— 57.0	— 64.5	—	—
	50 . . .	17	21065	21180	20909	17	— 56.2	— 47.4	— 59.2	—	—
	40 . . .	16	22497	22626	22319	16	— 52.6	— 49.2	— 50.1	—	—
	30 . . .	13	24387	24529	24165	13	— 48.5	— 45.6	— 51.1	—	—
	20 . . .	11	27080	27242	26827	11	— 41.0	— 41.4	— 48.2	—	—
	10 . . .	1	31729	—	—	1	— 41.5	—	—	—	—
Aswan 1200 U.T.	Surface . . .	31	984m.b.	986m.b.	981m.b.	31	39.5	43.0	36.5	31	6.5
	1000 . . .	31	47	92	18	—	—	—	—	—	—
	850 . . .	31	1505	1517	1474	31	25.7	30.9	22.1	29	0.3
	700 . . .	30	3163	3217	3121	30	11.0	11.5	7.0	24	3.7
	600 . . .	30	4435	4503	4390	30	5.1	9.6	— 1.8	10	— 9.2
	500 . . .	30	5903	5974	5857	30	— 2.0	0.8	— 7.0	4	— 19.4
	400 . . .	28	7646	7724	7577	28	— 12.5	— 8.4	— 15.9	2	— 28.4
	300 . . .	28	9779	9872	9674	28	— 27.2	— 21.3	— 30.4	—	—
	200 . . .	24	12578	12722	12455	24	— 48.0	— 42.9	— 51.0	—	—
	150 . . .	24	14415	14609	14285	24	— 61.5	— 58.4	— 64.6	—	—
	100 . . .	21	16833	17117	16692	21	— 75.1	— 70.0	— 77.6	—	—
	70 . . .	20	18970	19280	18830	20	— 66.6	— 63.0	— 70.0	—	—
	60 . . .	19	19905	20208	19825	19	— 60.9	— 57.2	— 65.0	—	—
	50 . . .	19	21053	21376	20897	19	— 53.7	— 60.3	— 60.4	—	—
	40 . . .	14	22486	22839	22328	14	— 51.8	— 46.4	— 54.7	—	—
	30 . . .	14	24432	24815	24246	14	— 47.0	— 39.1	— 49.8	—	—
	20 . . .	11	27060	27301	26919	11	— 39.4	— 35.0	— 43.1	—	—
	10 . . .	—	—	—	—	—	—	—	—	—	—

N — The number of cases the element has been observed during the month.

* The atmospheric pressure corrected to the elevation of the radiosonde station.

Table B 2.—MEAN AND EXTREME VALUES OF THE FREEZING LEVEL AND THE TROPOPAUSE.
THE HIGHEST WIND SPEED IN THE UPPER AIR

AUGUST — 1967

Station	Freezing level									First Tropopause									Highest wind speed									
	Mean			Highest			Lowest			Mean			Highest			Lowest			Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Direction (000 - 360)°	Speed in Knots
	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)				
0000 U.T.	(N)	(N)	(N)							(N)	(N)	(N)																
	Mersa Matruh (A)	4926 (28)	563 (28)	—	5870	500	—	4390	599	—	16246 (10)	109 (10)	-72.9 (10)	17570	87	-78.5	15390	124	-69.2	10600	264	250	63					
	Heliwan . . .	5370 (28)	532 (28)	—	5860	502	—	4580	585	—	16343 (23)	107 (23)	-75.3 (23)	17390	89	-77.5	14760	134	-74.4	23910	031	020	84					
Aswan . . . (A)	Mersa Matruh (A)	5197 (30)	546 (30)	-10.2 (11)	5850	502	—	4280	610	-5.3	16547 (26)	104 (26)	-77.4 (26)	17590	84	-80.5	15840	115	-76.0	23200	036	090	58					
	Heliwan . . .																											
	Aswan . . . (A)																											
1200 U.T.	(N)	(N)	(N)							(N)	(N)	(N)																
	Mersa Matruh (A)	5166 (27)	549 (27)	—	6030	493	—	4610	580	—	16273 (5)	109 (5)	-73.1 (5)	16841	100	-73.4	15500	122	-70.5	9260	320	260	68					
	Heliwan . . .	5626 (27)	518 (27)	—	6380	471	—	4900	568	—	16792 (20)	102 (20)	-72.8 (20)	18180	80	-75.0	15190	132	-70.2	23570	—	140	54					
Aswan . . . (A)	Mersa Matruh (A)	5402 (30)	533 (30)	-11.4 (8)	6160	486	—	4020	630	-8.8	16629 (20)	103 (20)	-74.8 (20)	17950	87	-71.9	16200	114	-71.3	18260	080	090	68					
	Heliwan . . .																											
	Aswan . . . (A)																											

N = The Number of cases the element has been observed during the month.

Table B 3.—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES
MERSA MATRUH (A) - AUGUST 1967

Time	Pressure Surface (Millibar)	Wind between ranges of direction (000—360) ^a																Number of Calm winds	Total Number of Observations (TN)	Mean Scalar wind Speed (Konte)						
		345		015		045		075		105		135		165		195		225		255		285				
		N	m	N	m	N	m	N	m	N	m	N	m	N	m	N	m	N	m	N	m	N	m			
0000 U.T.	Surface	1	1	1	10	0	—	0	—	0	—	0	—	1	1	2	6	10	5	5	6	6	3	29	5	
	1000	2	12	0	—	0	—	0	—	0	—	0	—	0	—	2	8	4	8	10	7	9	0	25	9	
	850	11	14	1	10	2	12	0	—	0	—	0	—	0	—	0	—	1	7	3	29	6	14	0	24	14
	700	7	10	0	—	1	5	0	—	0	—	0	—	0	—	0	—	1	9	5	13	7	15	0	12	12
	600	2	10	2	12	0	—	1	4	0	—	0	—	0	—	0	—	3	15	5	18	7	11	0	20	13
	500	2	10	0	—	0	—	0	—	0	—	0	—	0	—	2	24	7	18	5	16	4	21	0	20	18
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	8	29	8	31	1	27	2	18	0	19	29
	300	0	—	0	—	0	—	0	—	0	—	0	—	1	21	11	37	3	35	1	33	1	18	0	17	34
	200	0	—	0	—	0	—	0	—	0	—	0	—	4	25	6	34	5	25	0	—	0	—	0	15	29
	150	0	—	0	—	0	—	0	—	0	—	0	—	3	22	6	34	3	17	0	—	0	—	0	12	27
	100	0	—	0	—	0	—	0	—	0	—	1	12	1	15	3	27	4	18	0	0	0	—	0	9	20
	70	0	—	0	—	1	23	2	12	2	18	1	4	0	—	0	—	0	—	0	—	0	—	0	6	11
	60	0	—	0	—	1	9	3	14	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	4	12
	50	0	—	0	—	1	30	4	32	0	—	1	27	0	—	0	—	0	—	0	—	0	—	0	6	30
	40	6	—	0	—	3	29	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	5	29
	30	0	—	0	—	1	22	2	25	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	3	24
	20	0	—	0	—	0	—	1	25	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	0	25
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
1200 U.T.	Surface	16	10	1	16	1	9	0	—	0	—	0	—	0	—	0	—	0	—	3	16	10	13	0	31	12
	1000	8	12	1	16	0	—	0	—	0	—	0	—	0	—	0	—	4	16	18	15	0	31	15		
	850	4	6	2	4	0	—	0	—	0	—	0	—	0	—	8	14	6	12	11	13	0	31	12		
	700	6	13	1	5	1	9	0	—	0	—	0	—	1	5	0	—	6	11	4	13	11	13	0	30	12
	600	5	10	3	14	1	11	0	—	0	—	0	—	1	13	3	18	6	13	3	11	4	10	0	26	12
	500	3	15	0	—	0	—	0	—	1	6	0	—	0	—	5	25	7	17	8	16	1	7	0	25	17
	400	2	12	0	—	0	—	0	—	0	—	0	—	2	30	5	40	10	23	5	29	1	10	0	25	27
	300	0	—	0	—	0	—	0	—	0	—	0	—	2	21	12	33	4	36	6	32	1	32	0	25	32
	200	0	—	0	—	0	—	0	—	0	—	0	—	2	20	3	31	8	37	4	26	0	—	0	17	31
	150	0	—	0	—	0	—	0	—	0	—	0	—	5	29	5	25	4	32	1	19	0	—	0	15	25
	100	0	—	0	—	0	—	0	—	0	—	1	22	1	10	1	10	2	18	1	42	0	—	0	6	20
	70	0	—	0	—	0	—	1	34	0	—	1	20	0	—	0	—	0	—	0	—	0	—	0	2	27
	60	0	—	0	—	0	—	1	24	1	28	0	—	0	—	0	—	0	—	0	—	0	—	0	2	26
	50	0	—	0	—	0	—	2	16	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	16
	40	0	—	0	—	1	20	1	30	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	25
	30	0	—	0	—	1	20	1	10	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	15
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

N = The number of cases the element has been observed during the month,

TN = The total number of cases the wind has been observed for all directions during the month,

Table B 3—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES.

HELWAN—AUGUST 1967

Time	Pressure Surface (Millibar)	Wind between ranges of direction (000—360)°												Number of Calm winds	Total Number of observations ('TN')	Mean Scalar wind Speed (Knots)								
		345		015		045		075		105		135		165		195		225		255				
		/	014	/	044	/	074	/	104	/	134	/	164	/	194	/	224	/	254	/	284	/	314	/
0000 U. T.	Surface	13	6	6	8	1	7	2	18	0	—	0	—	0	—	0	—	0	—	0	—	7	6	
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	30	
	850	4	10	5	10	0	—	1	7	0	—	0	—	0	—	0	—	1	20	3	12	7	8	
	700	1	18	3	6	1	17	2	12	1	4	0	—	1	3	1	8	1	12	5	6	6	11	
	600	5	7	1	9	0	—	2	3	0	—	0	—	0	—	1	9	2	10	6	10	9	10	
	500	2	6	2	9	1	14	0	—	0	—	0	—	1	5	2	18	7	14	8	16	3	19	
	400	1	9	1	16	0	—	0	—	0	—	0	—	0	—	2	22	10	21	12	2	12	0	
	300	0	—	0	—	0	—	0	—	0	—	1	9	0	—	7	19	11	23	7	22	2	20	
	200	0	—	0	—	0	—	0	—	0	—	1	25	3	16	10	23	10	24	2	18	1	14	
	150	0	—	0	—	0	—	0	—	0	—	2	18	5	31	11	25	6	17	1	13	0	0	
	100	0	—	0	—	0	—	0	—	3	20	4	25	10	22	0	—	2	16	0	—	0	0	
	70	0	—	0	—	0	—	8	21	4	19	1	7	0	—	0	—	0	—	0	—	0	19	
	60	0	—	0	—	0	—	10	23	3	22	0	—	0	—	0	—	0	—	0	—	0	19	
	50	0	—	0	—	1	22	11	26	0	—	0	—	0	—	0	—	0	—	0	—	0	13	
	40	0	—	0	—	3	35	6	33	3	26	0	—	0	—	0	—	0	—	0	—	0	12	
	30	0	—	0	—	0	—	9	36	0	—	0	—	0	—	0	—	0	—	0	—	0	9	
	20	0	—	0	—	0	—	3	35	1	42	0	—	0	—	0	—	0	—	0	—	0	4	
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
0000 U. T.	Surface	5	11	0	—	0	—	0	—	0	—	0	—	0	—	1	6	1	4	10	9	9	3	12
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0	29	
	850	7	9	3	13	1	10	0	—	1	9	1	4	0	—	2	4	2	6	4	8	4	7	
	700	3	15	2	12	1	6	0	—	0	—	0	—	2	—	2	6	4	12	8	10	3	5	
	600	3	12	1	5	2	8	—	—	1	4	1	4	0	—	0	—	2	12	10	10	6	9	
	500	0	—	1	19	1	10	1	2	1	10	0	—	0	—	2	10	6	13	9	12	6	12	
	400	0	—	0	—	0	—	0	—	1	10	0	—	0	—	1	13	14	18	4	22	4	12	
	300	0	—	0	—	0	—	0	—	0	—	0	—	1	10	3	23	12	18	5	22	3	21	
	200	0	—	0	—	0	—	0	—	0	—	1	17	2	33	4	28	11	19	3	25	1	7	
	150	0	—	0	—	0	—	0	—	0	—	1	30	5	22	6	19	5	21	3	9	0	0	
	100	0	—	0	—	0	—	0	—	3	20	4	24	6	18	1	29	0	—	0	—	0	0	
	70	0	—	0	—	1	21	2	22	5	17	5	23	1	9	0	—	0	—	0	—	0	14	
	60	0	—	0	—	1	19	1	29	6	27	3	22	0	—	1	23	0	—	0	—	0	20	
	50	0	—	0	—	0	—	5	27	5	20	0	—	1	24	0	—	1	24	0	—	0	12	
	40	0	—	0	—	0	—	2	30	5	28	3	29	0	—	0	—	0	—	0	—	0	10	
	30	0	—	0	—	0	—	7	30	3	24	0	—	0	—	0	—	0	—	0	—	0	9	
	20	0	—	0	—	0	—	5	31	1	6	0	—	0	—	0	—	0	—	0	—	0	6	
	20	0	—	0	—	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

N = The number of cases the element has been observed during the month.

TN = Total number of cases the wind has been observed for all directions during the month.

Table B 3 (contd.).—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES

ASWAN (A) AUGUST — 1967

Time	Pressure Surface Millibar	Wind between specified ranges of direction (000—300)*														Number of calm winds	Total number of observations (TN)	Mean scalar wind Speed (knots)										
		345 / 014		015 / 044		045 / 074		075 / 104		105 / 134		135 / 164		165 / 194		195 / 224		225 / 254		255 / 284		285 / 314						
		N m	(ft) m	N m	(ft) m	N m	(ft) m	N m	(ft) m	N m	(ft) m	N m	(ft) m	N m	(ft) m	N m	(ft) m	N m	(ft) m	N m	(ft) m	N m	(ft) m					
0000 U.T.	Surface	7	4	2	4	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	7	12	8	4	30	6		
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	850	3	8	1	12	0	—	0	—	0	—	0	—	2	12	5	8	5	12	6	20	8	14	0	30	13		
	700	0	—	0	—	0	—	0	—	1	6	2	4	4	12	3	19	7	15	7	22	4	9	2	7	0		
	600	1	11	0	—	0	—	0	—	0	—	2	4	4	12	13	18	6	11	3	18	1	9	0	30	14		
	500	1	11	1	6	4	8	1	8	4	8	1	10	4	9	2	14	1	11	7	9	3	6	1	16	0		
	400	1	1	4	7	3	12	7	10	2	8	4	8	3	8	2	4	1	8	0	—	2	12	0	—	0		
	300	2	11	0	—	5	8	7	15	5	13	4	8	1	6	3	9	0	—	1	6	0	—	0	28	11		
	200	0	—	0	—	2	15	11	19	9	20	4	18	1	20	1	27	0	—	0	—	0	—	0	—	0		
	150	0	—	0	—	1	20	7	26	15	29	2	20	1	18	0	—	0	—	0	—	0	—	0	—	0		
	100	0	—	0	—	1	28	6	32	17	39	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0		
	70	0	—	0	—	2	23	15	28	4	26	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0		
	60	0	—	0	—	2	23	15	28	4	26	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0		
	50	0	—	1	35	2	36	17	30	1	20	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0		
	40	0	—	0	—	4	30	11	36	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0		
	30	0	—	0	—	0	—	10	37	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0		
	20	0	—	9	—	0	—	2	35	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0		
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
1200 U.T.	Surface	4	10	—	—	1	—	—	—	—	—	—	—	2	4	3	5	3	9	10	10	9	12	0	31	10		
	1000	—	—	0	—	0	—	0	—	0	—	0	—	0	—	1	7	5	9	12	11	11	12	0	31	—		
	850	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	10	6	18	13	20	6	15	0	30	12		
	700	0	—	0	—	0	—	0	—	1	15	0	—	4	10	6	18	13	20	6	15	0	—	0	30	17		
	600	0	—	0	—	0	—	0	—	1	6	1	9	10	15	6	13	7	22	4	15	1	15	0	30	16		
	500	3	12	2	6	6	—	0	—	1	12	2	12	2	11	6	12	7	10	3	10	3	8	1	7	0	30	10
	400	2	8	3	11	9	9	5	14	2	8	2	6	1	6	2	8	1	12	1	3	0	—	0	—	28	9	
	300	0	—	2	8	6	20	10	17	4	14	3	12	0	—	2	11	0	—	1	2	0	—	0	—	13	—	
	200	0	—	0	—	1	4	12	22	10	21	0	—	1	16	0	—	0	—	0	—	0	—	0	—	24	20	
	150	0	—	0	—	1	25	9	27	10	30	2	25	0	—	0	—	0	—	0	—	0	—	0	—	0	22	28
	100	0	—	0	—	0	—	10	38	10	34	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	20	35
	70	0	—	0	—	1	38	12	37	5	41	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	18	38
	60	0	—	0	—	0	—	9	37	6	35	1	31	0	—	0	—	0	—	0	—	0	—	0	—	0	16	36
	50	0	—	0	—	0	—	10	35	2	34	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	12	35
	40	0	—	0	—	0	—	7	34	5	39	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	12	36
	30	0	—	0	—	1	43	7	33	2	32	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	10	34
	20	0	—	0	—	3	33	2	40	1	24	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	6	34
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the wind has been observed from the range of directions during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

REVIEW OF AGRO-METEOROLOGICAL STATIONS

EL-KASR — AUGUST 1967

This month was slightly warmer than normal. The mean daily air temperature at $1\frac{1}{2}$ metres above ground was slightly (0.1°C) above normal. The daily maximum air temperatures were slightly higher than normal most days of the month. The absolute maximum air temperature for the month (31.7°C) was recorded on the 15th.

The extreme maximum soil temperatures showed small deviations from the corresponding values of last August and the differences ranged between $+0.5^{\circ}\text{C}$ at 5 cms depth and -0.2°C at 20 cms depth. The extreme minimum soil temperature at 5 cms depth was higher by 1.4°C than the corresponding value of last August. At other depths between 10 & 100 cms the extreme minima showed small departures from the corresponding values of last August and the differences ranged between 0.1 & 0.2°C .

The mean daily Pan evaporation was 0.18 ms. more than the corresponding value of August 1966. The total actual duration of bright sunshine was 18.5 hours more than the corresponding value of August 1966.

TAHRIR — AUGUST 1967

Compared with last August, this month was slightly milder and more humid. The mean daily air temperature at $1\frac{1}{2}$ metres above ground was slightly lower (0.1°C) than the corresponding value of last August and the mean daily relative humidity was higher by 6%. The month was characterized with a long heat wave which prevailed from the 3rd till the 13th and two short heat waves on the 20th & 30th. The absolute maximum air temperature for the month (38.7°C) was recorded on the 13th.

The extreme maximum soil temperatures were higher than the corresponding values of last August at all depths between 5 & 100 cms with the exception of the 10cm depth where the value was lower. The difference was 0.5°C at 10 cm. depth and ranged between 0.7°C & 0.2°C at all other depths. The extreme minimum soil temperature at 5 cms. depth was higher by 2.7°C than the corresponding value of last August. At other depths between 10 & 100 cms the extreme minima showed no significant departure from the corresponding values of last August and the differences ranged between 0.1°C & 0.2°C .

The mean daily Pan evaporation was 0.67 mms, less than the corresponding value of August 1966. The total actual duration of bright sunshine was 9.5 hours less than the corresponding value of August 1966.

BAHTIM — AUGUST 1967

This month was slightly milder than average. The mean daily air temperature at $1\frac{1}{2}$ metres above ground was 1.1°C below average. The daily maximum air temperatures were slightly above normal during the second week and slightly below normal in rest of the month. The absolute maximum air temperature for the month (36.4°C) was recorded on the 13th. The mean daily relative humidity was 69%.

GIZA — AUGUST 1967

This month was slightly warmer than normal. The mean daily air temperature at $1\frac{1}{2}$ metres above ground was 0.6°C above normal and the mean daily relative humidity was 3% less than normal. The daily maximum air temperatures were slightly above normal most of the first three weeks of the month and four heat waves were experienced. The first wave was the most excessive; it prevailed from the 6th till the 9th and yielded the absolute maximum air temperature for the month (37.2°C) on the 8th. The other three heat waves occurred on the 13th, (16th-17th) & 20th respectively.

The extreme maximum soil temperatures in the dry field were lower than the corresponding values of last August at all depths between 5 & 100 cm., apart from the 20 cms depth where the extreme maximum soil temperature was slightly higher. The difference was 0.1°C for the 20 cm depth, and for other depths it ranged between 2.2°C at 10 cms. to 0.2°C at 50 cms. The extreme minimum soil temperatures in the dry field were higher than the corresponding values of last August at 5 cms. depth and lower at all other depths between 10 & 100 cms. The difference was 1.6°C at 5 cms. depth and for other depths it ranged between 0.5 & 0.8°C .

The mean daily Pan evaporation was more by 0.14 ms., than the corresponding value of August 1966. The total actual duration of bright sunshine was more by 13.8 hours than the corresponding value of August 1966.

KHARGA — AUGUST 1967

This month was warmer than normal. The mean daily air temperature at $1\frac{1}{2}$ metres above ground was 1.0°C above normal. The month was characterized in particular by a long heat wave which prevailed during the second and third weeks and yielded the absolute maximum air temperature for the month (43.8°C) on the 17th.

The extreme maximum soil temperatures at all depths between 5 & 100 cms. were higher than the corresponding values of last August and the differences ranged between 1.5°C at 5 cms depth and 0.2°C at 20 cms depth. The extreme minimum soil temperatures were lower than the corresponding values of last August at all depths between 5 & 100 cms, with the exception of the 20 cm depth where the value was higher than last August. The difference was 0.4°C for the 20 cms depth, and for other depths it ranged between 0.1°C at 10 cms depth & 0.6°C at 50 cms depth.

The mean daily Pan evaporation was less by 0.79 ms., than the corresponding value of August 1966. The total actual duration of bright sunshine was more by one hour than the corresponding value of August 1966.

**Table C 1.—AIR TEMPERATURE AT 1½ METRES ABOVE GROUND
AUGUST — 1967**

STATION	Air Temperature (°C)					Mean Duration in hours of daily air temperature above the following values.											
	Mean Max.	Mean Min.	Mean of the day	Night time mean	Day time mean	-5°C	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C	
El Kaer	29.8	20.8	25.7	23.5	27.5	24.0	24.0	24.0	24.0	24.0	23.5	15.2	0.2	0.0	0.0	0.0	
Tahrir	35.5	21.0	27.1	23.6	29.8	24.0	24.0	24.0	24.0	24.0	23.5	13.7	7.4	0.6	0.0	0.0	
Bahtim	34.2	19.1	26.3	22.4	29.3	24.0	24.0	24.0	24.0	24.0	21.4	12.7	7.0	0.2	0.0	0.0	
Giza	34.9	21.7	28.0	25.5	30.2	24.0	24.0	24.0	24.0	24.0	24.0	16.8	8.3	0.3	0.0	0.0	
Kharga	40.0	22.7	32.2	28.5	35.5	24.0	24.0	24.0	24.0	24.0	24.0	20.8	15.2	9.1	1.5	0.0	

**Table C 2.—ABSOLUTE VALUES OF AIR TEMPERATURE AT 1½ METRES ABOVE GROUND,
ABSOLUTE MINIMUM AIR TEMPERATURE AT 5cms ABOVE GROUND OVER
DIFFERENT FIELDS.**

AUGUST — 1967

STATION	Max. Temp. at 1½ metres (°C)				Min. Temp. at 1½ metres (°C)				Min. Temp. at 5 cms. above (°C)			
	Highest		Lowest		Highest		Lowest		Dry soil		Grass	
	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date
El Kaer	31.7	15	28.8	2	25.0	17	18.2	27	14.0	27	—	—
Tahrir	38.7	13	32.4	23	23.5	20	17.1	28	15.9	28	—	—
Bahtim	36.4	13	31.4	23	22.3	19	16.6	27	13.9	16.18	—	—
Giza	37.2	8	32.0	23	24.5	21	19.5	28	15.1	16	14.9	16
Kharga	43.8	17	37.2	24	28.2	10	19.3	29	16.8	29	—	—

Table C 3—(SOLAR+SKY) RADIATION, DURATION OF BRIGHT SUNSHINE, RELATIVE HUMIDITY, VAPOUR PRESSURE AT 1½ METRES ABOVE GROUND, EVAPORATION & RAINFALL.

AUGUST — 1967

STATION	(Solar+Sky) Radiation g.m. cal/cm ²	Duration of Bright Sunshine (hours)			Relative Humidity. %				Vapour pressure (mms)					Evaporation(mms)	Rainfall (mms)				
		Total monthly	Actual monthly	Total Possible monthly	%	Mean of day	1200 U.T.	Lowest	Date	Mean of day	1200 UT	Highest	Date	Lowest	Date	Piche	Pan class (A)	Total Amount Monthly	Max. Fall in one day
Kasr ..	529.5	378.8	412.5	92	77	66	52	27	19.1	19.9	23.2	10	13.6	27	6.6	10.95	0.0	0.0	—
rir ..	621.6	362.2	411.0	88	75	45	31	8	19.4	17.4	22.5	17	13.4	28	7.7	9.85	0.0	0.0	—
Bahtim ..	—	351.2	409.9	86	69	41	30	27	16.9	15.6	23.0	11	11.1	27	7.3	8.48	0.0	0.0	—
.....	622.8	356.3	400.9	87	61	37	25	3	16.7	14.4	20.8	8	8.3	27	9.6	11.24	0.0	0.0	—
Kharga ..	535.7	378.8	403.3	94	22	15	8	16	7.5	7.8	15.7	22	3.4	16	22.5	18.95	0.0	0.0	—

**TABLE C 4.—EXTREME SOIL TEMPERATURE AT DIFFERENT DEPTHS
IN DIFFERENT FIELDS**

AUGUST — 1967

STATION	(H) (L)	Extreme soil temperature (°C) in dry field at different depths (cms.)								Extreme soil temperature (°C) in grass field at different depths (cms.)							
		2	5	10	20	50	100	200	300	2	5	10	20	50	100	200	300
El Kast	H	45.0	40.5	35.6	31.0	29.0	27.1	24.8	—	—	—	—	—	—	—	—	—
	L	26.2	24.0	24.2	27.0	27.6	26.4	24.0	—	—	—	—	—	—	—	—	—
Tahrir	H	65.1	48.8	42.4	37.2	33.8	32.4	30.2	28.4	—	—	—	—	—	—	—	—
	L	29.0	27.3	27.6	30.6	31.5	31.2	29.1	27.4	—	—	—	—	—	—	—	—
Bahtime	H	56.3	43.0	39.0	33.8	32.1	29.7	26.4	—	—	—	—	—	—	—	—	—
	L	28.2	28.3	29.2	31.0	30.0	27.9	25.1	—	—	—	—	—	—	—	—	—
Giza	H	60.8	45.6	38.1	35.4	33.6	31.4	28.1	26.1	35.3	32.6	31.1	29.8	28.9	—	—	—
	L	30.2	28.4	30.1	32.0	32.3	30.4	26.9	25.4	25.0	24.2	24.6	26.2	27.0	—	—	—
Kharge.	H	57.4	51.7	42.3	37.8	35.4	33.4	31.0	29.4	—	—	—	—	—	—	—	—
	L	22.7	25.8	30.1	33.4	33.5	32.5	30.1	28.7	—	—	—	—	—	—	—	—

TABLE C 5.—SURFACE WIND

AUGUST — 1967

STATION	Wind Speed m/sec (1½ metres)			Days with surface wind speed at 10 metres.							Max. Gust (knots at 10 metres)	
	Mean of the day	Night time mean	Day time mean	≥ 10 knots	≥ 15 knots	≥ 20 knots	≥ 25 knots	≥ 30 knots	≥ 35 knots	≥ 40 knots	value (knots)	Date
El Kast	3.5	2.4	4.6	—	—	—	—	—	—	—	—	—
Tahrir	2.2	1.5	2.9	25	4	—	—	—	—	—	21	4,10,21
Bahtim.	1.8	1.3	2.3	10	1	0	0	0	0	0	18	10
Giza	2.3	1.9	2.8	28	2	0	0	0	0	0	19	22,25,26*
Kharge ,	2.9	1.9	3.9	31	15	4	0	0	0	0	32	22

* More than three days.

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ALY SULTAN ALY
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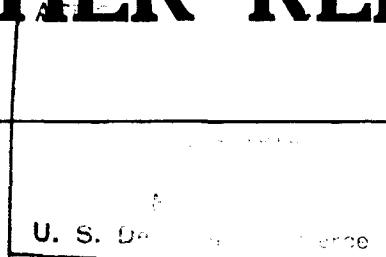


THE ARAB REPUBLIC OF EGYPT

MONTHLY WEATHER REPORT

VOLUME 10

NUMBER 9



SEPTEMBER, 1967

U.D.C. 551.506.1 (62)

THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

PUBLICATIONS OF THE METEOROLOGICAL AUTHORITY OF THE ARAB REPUBLIC OF EGYPT—CAIRO

In fulfilment of its duties, the Egyptian Meteorological Authority issues several reports and publications on weather, climate and agro-meteorology. The principal publications are described on this page.

Orders for publications should be addressed to :

"Chairman of the Board of Directors, Meteorological Authority, Kubri-el-Qubbeh — CAIRO".

THE DAILY WEATHER REPORT

This report is issued daily by the Meteorological Authority since the year 1901. It includes surface and upper air observations carried out by the relevant networks of the Republic at the principal hours of observations.

As from January 1968 this report was revised to include a condensed representative selection of surface and upper air observations besides the 1200 U.T. surface & 500 mb charts.

As from 1st January 1972, the Daily Weather Report will not be issued or distributed because it does not serve no longer any good purpose as it used to be in the past. The Meteorological Authority is ready to supply the recipients of the Report with any information used to be included in it, if they so desire.

THE MONTHLY WEATHER REPORT

First issued in 1909, the Monthly Weather Report served to give a brief summary of the weather conditions that prevailed over Egypt during the month, with a table showing the mean values for few meteorological elements and their deviations from the normal values. From 1954 to 1957 this report was in a rapid state of development and extension resulting into a voluminous report on January 1958 giving surface, upper air, and agro-meteorological data for Egypt.

As from January 1964, the Monthly Weather Report was pressed to give climatological data for a representative selection of synoptic stations.

THE AGRO-METEOROLOGICAL ABRIDGED MONTHLY REPORT

Gives a review of weather experienced in the agro-meteorological stations of Egypt as well as monthly values of certain elements.

THE ANNUAL REPORT

This report gives annual values and statistics for the various meteorological elements, together with a summary of the weather conditions that prevailed during all months of the year.

CLIMATOLOGICAL NORMALS FOR EGYPT

A voluminous edition was issued in March 1968 which brings normals and mean values up till 1960.

METEOROLOGICAL RESEARCH BULLETIN

First issued in January 1969 on a bi-annual basis. It includes research works carried out by members of staff of "The Meteorological Institute for Research and Training" and the Operational Divisions of the Meteorological Authority.

TECHNICAL NOTES

As from October 1970, the Meteorological Authority started to issue a new series of publications in the form of Technical Notes (non periodical) on subjects related to studies and applications of meteorology in different fields for the benefit of personnel working in these fields.



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GENERAL SUMMARY OF WEATHER CONDITIONS

SEPTEMBER 1967

Normal autumn weather type intervened with a heat wave round the 7th. Light rain over the northwest coast round the 7th and 21st. Early morning mist and low stratus over Delta, Canal and Cairo areas.

GENERAL DESCRIPTION OF WEATHER

A pronounced short heat wave prevailed all over the Republic round the 7th. Otherwise, weather was mild & humid in the northern parts, hot & rather humid in the central parts, excessively hot & dry in the southern parts.

Light rain fell over scattered localities in west of the Mediterranean coast round the 7th & 21st. Early morning low clouds & scattered mist developed frequently over few localities in Delta, Canal & Cairo areas.

PRESSURE DISTRIBUTION

The most outstanding features of pressure distribution over the surface maps during this month were :

- The Atlantic & Siberian anticyclones.
- Travelling depressions or troughs through Central Europe
- Weak high pressure over Central Mediterranean and Libya.
- Complex monsoon low pressure system over Iraq, the Arabian gulf & Arabia.

During this month, the barometric pressure in Egypt was subjected to six falls round the periods : (1st-3rd), (5th-7th), (10th-12th), (15th-16th), (21st-22nd) & (25th-27th) respectively.

The pressure fall during the first period occurred as a result of the slight deepening

and westward elongation of the Iraq monsoon trough through East Mediterranean.

The second pressure fall was due to the eastward motion of a complex trough extending from the coast of Libya through central Mediterranean & Italy. This pressure fall was the most appreciable fall during this month and yielded a pronounced minimum round the 7th.

The pressure falls during the 3rd & 4th periods were due to the slight deepening and northwestward elongations of the Iraq monsoon trough through Asia Minor & the Balkans.

During the 5th & 6th periods, the pressure falls were slight and due to the westward elongation of the Iraq monsoon trough.

During the rest periods of the month, the barometric pressure experienced consecutive rises when high pressure over Central Mediterranean & Libya extended slightly eastwards.

The important features of pressure distributions over the 700 & 500 m.b. upper charts were :

- Two deep low pressure systems, one over North Atlantic and the other over North Urasia.
- Secondary lows (or troughs) through latitudes between 30° & 45°N passing through East Mediterranean & Egypt round the 5, 8, 15, 19, 22, 26 & 30th.
- High pressure belt south of latitude 30°N.

SURFACE WIND

Light to moderate Nly and NWly winds prevailed most of this month in general. Winds became fresh to strong during many days of the month in the Red Sea district and during few days in few scattered localities. Calms were frequent most of night and early morning intervals in scattered localities.

TEMPERATURE

Maximum temperature rose appreciably above normal round the 7th, when a pronounced heat wave prevailed all over the Republic. Otherwise, it oscillated slightly in general round normal in the northern & central parts and below normal in the southern parts ; its values ranged most of the month between 28°C & 31°C, between 32°C & 36°C and between 36°C & 41°C respectively.

The absolute maximum temperature was 43.0°C reported at Aswan on the 8th.

Minimum temperature showed small variability in general round normal in the northern & central parts and below normal in the southern parts. Its values ranged between 17° & 23°C in most parts of the Republic.

The absolute minimum temperature was 13.2°C reported at Borg El Arab on the 25th.

PRECIPITATION

Light rain fell round the 7th & 21st over scattered localities in the western part of the Mediterranean coast. Otherwise, the month was rainless.

The highest daily rainfall was 5.2 mms reported at Ras El Hikma on the 21st.

The highest monthly rainfall was 5.6 mms reported at Ras El Hikma.

Cairo, January 1972

Chairman (M. F. TAHA)

Board of Directors

SURFACE DATA

Table A 1.—MONTHLY VALUES OF THE ATMOSPHERIC PRESSURE, AIR TEMPERATURE,
RELATIVE HUMIDITY, BRIGHT SUNSHINE DURATION & PICHE EVAPORATION

SEPTEMBER — 1967

STATION	Atmospheric Pressure (mbs) M.S.L.		Air Temperature °C								Relative Humidity %		Bright Sunshine Duration (Hours)			Piche Evaporation mm. Mean	
			Maximum		Minimum		Dry Bulb		Wet Bulb				Total	Total	%		
	Mean	D.F. Normal or Average	(A) Mean	D.F.Normal or Average	(B) Mean	D.F. Normal or Average	A+B 2	Mean	D.F. Normal or Average	Mean	D.F. Normal or Average	Mean	D.F. Normal or Average	Total Actual	Total Possible	%	
Sallum	1013.7	-0.1	29.0	-0.3	21.0	+0.8	25.0	24.8	0.0	20.3	+0.2	64	+ 1	—	—	—	6.5
Mersa Matruh. . .(A)	1013.4	-0.3	23.9	+0.3	19.6	0.0	24.2	24.2	0.0	20.3	+0.3	68	+ 1	—	—	—	8.5
Alexandria . . .(A)	1012.8	+0.2	29.9	+0.4	21.3	+0.1	25.6	25.3	-0.7	20.9	-0.3	66	- 2	325.3	370.8	88	6.9
Port Said. . . .(A)	1011.7	-0.2	28.4	-0.8	23.0	-0.8	25.7	25.4	-0.7	21.3	-0.8	68	- 1	330.3	370.8	89	6.7
El Arish.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta.	1011.5	+0.1	32.2	-0.2	18.0	-0.4	25.1	24.7	+0.2	19.8	0.0	61	- 2	325.3	370.3	88	5.4
Cairo.(A)	1012.2	-0.4	32.2	-0.1	20.3	-0.4	24.5	25.7	+0.2	20.0	-0.2	57	- 1	—	—	—	14.4
Fayoum.	1010.8	-0.7	33.5	-0.2	19.7	+0.1	26.6	26.4	0.0	20.6	+0.9	57	+ 6	—	—	—	7.3
Minya.(A)	1011.2	+0.2	32.4	-2.0	17.2	-1.4	24.8	25.3	-0.3	19.7	+0.1	57	+ 2	334.6	370.1	90	9.0
Asyout.(A)	1011.2	+0.8	33.7	-1.2	20.3	+0.2	27.0	26.8	-0.7	19.0	+0.5	44	+ 5	—	—	—	16.8
Luxor.(A)	1009.0	+0.7	37.5	-0.8	20.7	-0.7	29.2	29.6	-0.4	18.8	-0.6	31	- 1	—	—	—	12.0
Aswan.(A)	1008.9	+0.9	38.5	-0.7	20.5	-1.6	29.5	30.2	-0.6	17.4	+0.2	22	+ 3	—	—	—	21.6
Siwa	1012.5	-0.9	34.4	-0.5	20.0	+1.7	27.2	27.4	+0.5	19.0	+0.5	41	0	—	—	—	12.3
Bahariya.	1011.6	-0.3	34.1	+0.1	20.2	+1.4	27.2	27.2	+0.6	19.3	+0.7	44	+ 1	—	—	—	9.6
Farafra.	1013.0	-0.2	34.7	+0.3	19.1	+0.2	26.9	26.9	+0.2	18.1	+1.6	38	+ 7	—	—	—	15.5
Dakhla.	1012.0	+1.8	35.3	-0.3	20.0	-0.3	27.6	27.6	-0.4	17.2	0.0	30	+ 2	342.0	369.2	93	18.4
Kharga.	1010.4	+0.4	36.5	-0.1	22.0	+0.6	29.2	29.8	+1.2	17.6	-0.3	29	- 3	—	—	—	24.8
Tor.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada.	1008.3	+0.3	31.9	+1.1	22.8	-0.3	27.4	27.7	-0.1	20.4	-0.6	48	- 4	—	—	—	21.8
Quseir.	1008.9	+0.7	31.6	-0.3	24.6	-0.6	28.1	28.3	+0.4	20.8	-0.4	48	- 5	—	—	—	23.0

TABLE A2.— MAXIMUM AND MINIMUM AIR TEMPERATURE

SEPTEMBER — 1967

Station	Maximum Temperature °C								Grass Min. Temp.		Minimum Temperature °C								
	Highest	Date	Lowest	Date	No. of Days with Max-Temp.					Mean	D. From Normal	Highest	Date	Lowest	Date	No. of Days with Min. Temp.			
					>25	>30	>35	>40	>45							<10	<5	<0	<-5
Balloum	39.9	6	26.3	23	30	8	1	0	0	20.6	—	24.7	6	18.5	27	0	0	0	0
Marsa Matruh . . (A)	38.2	6	27.2	24-27	30	4	1	0	0	—	—	22.7	8	17.6	14	0	0	0	0
Alexandria . . . (A)	39.3	7	28.2	23	30	8	1	0	0	—	—	24.4	8	17.3	29	0	0	0	0
Port Said . . . (A)	32.2	8	26.4	29	30	2	0	0	0	24.3	—	25.0	9	20.7	29	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	37.2	7	29.9	22	30	29	1	0	0	—	—	22.0	8	17.0	23	0	0	0	0
Cairo (A)	38.9	7	30.0	20,23	30	28	1	0	0	—	—	23.6	8	17.6	23	0	0	0	0
Fayoum	39.2	7	31.1	20	30	30	4	0	0	17.8	—	23.0	9	17.2	23	0	0	0	0
Minya (A)	41.7	7	30.8	22	30	30	5	1	0	15.0	—	21.1	11	15.5	29	0	0	0	0
Asyout (A)	38.5	7	31.0	23	30	30	8	0	0	21.9	—	25.0	8	16.9	23	0	0	0	0
Luxor (A)	42.0	8,15	34.2	20	30	30	26	5	0	14.6	—	25.0	8	17.2	30	0	0	0	0
Aswan (A)	43.0	8	35.0	22	30	28	6	0	—	—	—	24.8	9	17.4	24	0	0	0	0
Siwa	41.1	6	30.3	24	30	30	8	2	0	18.7	—	24.3	7	16.6	25	0	0	0	0
Bahariya	40.0	7	31.0	23	30	30	8	0	0	18.2	—	23.9	7	17.2	25	0	0	0	0
Farafra	40.8	15	30.8	23	30	30	13	2	0	18.5	—	21.8	6	15.8	26	0	0	0	0
Dakhla	42.8	7	31.6	23	30	30	15	2	0	—	—	24.3	15	15.7	26	0	0	0	0
Kharga	42.6	7	32.6	23	30	30	20	3	0	19.9	—	27.0	8	16.4	30	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	37.3	8	28.7	30	30	28	2	0	0	21.3	—	26.6	9	19.8	22	0	0	0	0
Quseir	38.3	8	29.5	30	30	25	1	0	0	23.0	—	27.5	9	21.5	27	0	0	0	0

TABLE A 3.—SKY COVER AND RAINFALL

SEPTEMBER — 1967

Station	Mean Sky Cover Oct.					Rainfall mm.s.										
	00 U.T.	06 U.T.	12 U.T.	18 U.T.	Daily Mean	Total Amount	D. From Normal	Max. Fall in one day		Number of Days with Amount of Rain						
								Amount	Date	<0.1	≥0.1	≥1.0	≥5.0	≥10	≥25	≥50
Sallum	2.4	1.8	3.0	1.2	2.0	0.0	— 0.7	0.0	—	0	0	0	0	0	0	0
Marsa Matruh . . . (A)	1.5	2.5	2.7	1.9	2.0	tr.	— 1.0	tr.	7	1	0	0	0	0	0	0
Alexandria (A)	1.7	3.8	3.1	2.3	2.6	tr.	— 0.5	rr.	8.9	2	0	0	0	0	0	0
Port Said (A)	—	1.1	0.6	—	—	0.0	— 0.1	0.0	—	0	0	0	0	0	0	0
E. Arieh	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	0.2	0.6	2.2	0.1	0.8	0.0	— 0.2	0.0	—	0	0	0	0	0	0	0
Cairo (A)	1.2	1.6	1.7	0.2	1.3	0.0	— tr.	0.0	—	0	0	0	0	0	0	0
Fayoum	—	0.4	0.7	0.8	—	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Minya (A)	0.0	0.4	0.4	0.2	0.2	0.0	— 0.1	0.0	—	0	0	0	0	0	0	0
Assyout (A)	0.0	0.1	0.1	0.1	0.0	0.0	— tr.	0.0	—	0	0	0	0	0	0	0
Luxor (A)	0.0	0.0	0.0	0.0	0.0	0.0	— 0.1	0.0	—	0	0	0	0	0	0	0
Aswan (A)	0.1	0.1	0.3	0.1	0.1	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Siwa	0.2	0.3	0.8	0.3	0.3	tr.	— 0.1	tr.	20	1	0	0	0	0	0	0
Bahariya	0.0	0.8	0.5	0.1	0.3	0.0	— tr.	0.0	—	0	0	0	0	0	0	0
Farafra	—	0.0	0.4	0.1	—	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Dakhla	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Kharga	0.0	0.0	0.0	0.0	0.0	0.0	— tr.	0.0	—	0	0	0	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Quseir	0.0	0.1	0.2	0.0	0.1	0.0	— tr.	0.0	—	0	0	0	0	0	0	0

Table A 4. -- DAYS OF OCCURRENCE OF MISCELLANEOUS WEATHER PHENOMENA.

SEPTEMBER — 1967

Station	Precipitation				Frost	Thunderstorm	Mist Vis ≤ 100 metres	Fog Vis < 1000 Metres	Haze Vis ≥ 1000 Metres	Thick Haze Vis < 1000 Metres	Dust or Sandstorm Vis ≥ 1000 Metres	Gale	Clear Sky	Cloudy Sky	
	Rain	Snow	Ice Pellets	Hail											
Sallum	0	0	0	0	0	0	0	0	0	0	1	0	0	13	0
Mersa Matruh (A)	0	0	0	0	0	0	0	0	0	0	3	0	0	15	0
Alexandria (A)	0	0	0	0	0	0	0	0	1	0	0	0	0	10	0
Port Said (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	—	—
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghaza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0
Cairo (A)	0	0	0	0	0	0	11	0	4	0	0	0	0	24	0
Fayoum	0	0	0	0	0	0	0	0	0	0	0	0	0	—	—
Minya (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0
Assyout (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0
Luxor (A)	0	0	0	0	0	0	0	0	0	0	3	0	0	30	0
Aswan (A)	0	0	0	0	0	0	0	0	0	0	4	0	0	30	0
Siwa	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0
Bahariya	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0
Farafia	0	0	0	0	0	0	0	0	0	0	0	0	0	—	—
Dakhla	0	0	0	0	0	0	0	0	0	0	9	0	0	30	0
Kharga	0	0	0	0	0	0	0	0	0	0	2	0	0	—	—
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0	0	0	0	0	0	0	0	0	0	3	0	0	30	0
Quseir	0	0	0	0	0	0	0	0	0	0	2	0	0	30	0

Table A 5.—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES
SEPTEMBER -- 1967

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated													
					345	015	045	075	105	135	165	195	225	255	285	315	All directions	
					/	/	/	/	/	/	/	/	/	/	/	/	/	
				014	044	074	104	134	164	194	224	254	284	314	344			
Sallum	14	0	0	1—10	68	117	112	26	7	4	2	9	1	2	43	236	627	
				11—27	21	5	3	0	0	0	0	1	0	0	7	42	79	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				—48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	89	122	115	26	7	4	2	10	1	2	50	278	706	
Mersa Matruh . . .	3	1	0	1—10	170	66	7	6	12	10	10	15	9	112	35	71	523	
				11—27	76	15	2	6	5	6	1	2	1	1	8	70	193	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				—48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	246	81	9	12	17	16	11	17	10	113	43	141	716	
Alexandria	15	0	0	1—10	147	29	19	5	15	18	9	3	5	6	81	175	512	
				11—27	34	3	0	0	0	0	1	0	0	0	2	62	91	183
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				—48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	181	32	19	5	15	18	10	3	5	8	143	266	705	
Port Said	10	4	5	1—10	215	19	4	4	4	4	0	0	18	130	41	206	645	
				11—27	9	2	0	5	0	0	0	0	4	2	11	23	56	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				—48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	224	21	4	9	4	4	0	0	22	132	52	229	701	
Tanta	62	0	0	1—10	40	13	11	18	2	1	27	106	73	107	155	104	657	
				11—27	0	0	0	0	0	0	0	0	0	0	0	1	1	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				—48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	40	13	11	18	2	1	27	106	73	107	155	105	658	
Cairo	59	0	7	1—10	101	95	37	29	9	6	3	2	9	26	70	148	535	
				11—27	46	30	0	1	0	0	0	0	3	4	7	28	119	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				—48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	143	135	32	30	9	6	3	2	12	30	71	176	634	
Fayoum	22	1	0	1—10	332	205	2	2	0	2	2	3	11	7	22	103	691	
				11—27	3	3	0	0	0	0	0	0	0	0	0	0	6	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				—48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	335	208	2	2	0	2	2	3	11	7	22	103	697	
Minya	11	33	1	1—10	322	57	0	0	0	3	1	1	1	11	9	172	577	
				11—27	56	25	0	0	0	0	0	0	0	0	0	17	98	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				—48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	378	82	0	0	0	3	1	1	1	11	9	189	675	

Table A 5 (contd.)—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES
SEPTEMBER — 1967

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated												All directions
					345	015	045	075	105	135	165	195	225	255	285	315	
					/	/	/	/	/	/	/	/	/	/	/	/	
				014	044	074	104	13	164	194	224	254	284	314	344		
Asyout	20	0	0	1 -10	17	3	0	0	0	2	0	0	12	216	164	106	520
				11-27	17	0	0	0	0	0	0	0	0	1	71	91	180
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				-48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	34	3	0	0	0	2	0	0	12	217	235	197	700
Louxor	11	4	0	1 -10	54	9	6	7	9	16	114	62	41	85	124	160	687
				11-27	1	0	0	0	0	0	0	0	0	0	4	13	18
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				-48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	55	9	6	7	9	16	114	62	41	85	128	173	705
Aswan	0	4	0	1 -10	208	136	5	1	2	2	1	0	1	3	20	121	500
				11-27	110	25	0	0	0	0	0	0	0	0	2	7	216
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				-48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	318	161	5	1	2	2	1	0	1	3	22	200	716
Niwa	26	11	0	1 -10	66	110	79	42	10	21	17	8	14	54	132	118	671
				11-27	0	0	0	0	0	1	0	0	0	0	11	0	12
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				-48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	66	110	79	42	10	22	12	8	14	54	143	118	683
Dakhla	1	6	12	1 -10	85	41	15	7	9	7	19	26	29	68	111	186	603
				11-27	34	6	0	0	0	0	0	0	0	0	0	58	98
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				-48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	119	47	15	7	9	7	19	26	29	68	111	244	701
Kharga	1	1	0	1 -10	84	13	5	5	3	1	1	3	1	7	58	272	455
				11-27	63	0	0	0	0	0	0	0	0	0	7	195	263
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				-48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	147	13	5	5	3	1	1	3	1	7	65	467	718
Hurghada	11	0	0	1 -10	8	13	3	1	1	3	0	0	1	1	37	38	106
				11-27	182	61	0	0	0	0	0	0	0	0	0	97	254
				28-47	4	0	0	0	0	0	0	0	0	0	0	5	0
				-48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	194	74	3	1	1	3	0	0	1	1	134	297	701
Quseir	7	4	0	1 -10	38	6	11	5	2	6	8	10	20	78	114	61	351
				11-27	80	42	8	0	0	0	0	0	0	0	69	147	340
				28-47	0	0	6	0	0	0	0	0	0	0	0	4	0
				-48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	118	48	19	5	2	6	8	10	20	78	183	212	701

UPPER AIR CLIMATOLOGICAL DATA

**Table B 1. MONTHLY MEANS AND MONTHLY ABSOLUTE HIGHER & LOWER
VALUES OF ALTITUDE, AIR TEMPERATURE & DEW POINT AT
STANDARD AND SELECTED PRESSURE SURFACES**

SEPTEMBER — 1967

Station	Pressure Surface Millibar	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Moron 0000 U.T.	Surface	26	1013mb	1016mb	1006mb	26	22.3	25.7	18.0	26	18.2
	1000	26	142	167	84	26	22.5	26.3	20.9	26	18.7
	850	26	1539	1571	1484	26	16.0	23.0	11.6	24	5.0
	700	25	3164	3214	3102	25	7.6	10.4	2.7	13	— 5.2
	600	25	4418	4471	4357	25	1.2	4.2	— 2.3	8	— 9.6
	500	25	5856	5936	5795	25	— 8.9	— 6.0	— 13.2	5	— 20.6
	400	24	7547	7626	7473	24	— 21.7	— 18.2	— 24.3	—	—
	300	24	9602	9689	9508	24	— 36.5	— 32.3	— 40.0	—	—
	200	24	12311	12408	12213	24	— 53.2	— 47.1	— 58.0	—	—
	150	22	14122	14250	14042	22	— 63.8	— 58.8	— 67.0	—	—
	100	20	16565	16704	16472	20	— 69.9	— 62.3	— 77.0	—	—
	70	16	18762	18900	18600	16	— 65.6	— 61.3	— 70.0	—	—
	60	16	19629	19810	19518	16	— 63.6	— 60.8	— 66.9	—	—
	50	15	20751	20946	20640	15	— 60.5	— 58.7	— 63.4	—	—
	40	13	22155	22356	22038	13	— 55.7	— 48.4	— 60.0	—	—
	30	10	23999	24203	23860	10	— 53.5	— 51.2	— 56.8	—	—
	20	4	26567	26725	26476	4	— 50.4	— 49.1	— 51.2	—	—
	10	1	31174	—	—	1	— 45.6	—	—	—	—
Hobart 0000 U.T.	Surface	29	996mb	998mb	993mb	29	21.9	24.1	19.9	29	17.7
	1000	29	106	136	77	—	—	—	—	—	—
	850	29	1505	1536	1485	29	16.6	23.2	11.7	28	2.1
	700	29	3135	3180	3093	29	9.7	13.6	4.5	5	— 8.2
	600	29	4397	4442	4335	29	2.4	7.4	— 1.7	2	— 16.0
	500	29	5844	5896	5767	29	— 7.0	— 3.6	— 10.2	1	— 24.2
	400	29	7543	7616	7447	29	— 19.9	— 16.2	— 22.7	—	—
	300	29	9617	9726	9498	29	— 33.7	— 28.8	— 36.3	—	—
	200	29	12354	12497	12242	29	— 52.4	— 48.7	— 55.6	—	—
	150	28	14162	14316	14059	28	— 64.4	— 61.4	— 67.1	—	—
	100	27	16589	16795	16477	27	— 71.6	— 63.2	— 74.9	—	—
	70	23	18727	18900	18590	23	— 65.7	— 58.7	— 69.7	—	—
	60	23	19664	19847	19573	23	— 63.0	— 57.7	— 67.1	—	—
	50	21	20794	21005	20654	21	— 59.4	— 57.4	— 62.0	—	—
	40	21	22201	22422	22068	21	— 56.7	— 53.5	— 59.2	—	—
	30	16	24027	24212	23903	16	— 53.8	— 49.6	— 63.2	—	—
	20	10	26675	26868	26583	10	— 48.7	— 45.6	— 52.2	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aawan 0000 U.T.	Surface	29	980mb	989mb	982mb	29	25.6	30.3	22.0	29	8.2
	1000	29	73	97	34	—	—	—	—	—	—
	850	29	1498	1529	1476	29	21.9	28.8	15.4	29	2.5
	700	29	3150	3210	3116	29	11.6	14.0	7.1	13	— 6.0
	600	28	4421	4487	4372	28	3.6	7.2	— 1.8	4	— 12.8
	500	27	5876	5940	5814	27	— 5.3	— 3.3	— 9.0	3	— 21.1
	400	26	7595	7677	7508	26	— 16.5	— 13.6	— 20.0	1	— 28.1
	300	26	9698	9792	9576	26	— 30.8	— 29.0	— 35.2	—	—
	200	25	12449	12552	12289	25	— 52.1	— 49.4	— 55.2	—	—
	150	24	14255	14386	14087	24	— 65.3	— 61.3	— 69.8	—	—
	100	23	16643	16702	16503	23	— 75.3	— 69.8	— 78.3	—	—
	70	20	18752	19000	18550	20	— 68.5	— 65.3	— 73.5	—	—
	60	18	19874	19916	19477	18	— 64.4	— 60.0	— 69.6	—	—
	50	18	20806	21069	20581	18	— 60.7	— 56.7	— 63.1	—	—
	40	16	22198	22474	21981	16	— 57.7	— 55.7	— 59.2	—	—
	30	13	24043	24306	23822	13	— 54.1	— 52.8	— 56.9	—	—
	20	9	26653	26866	26466	6	— 49.1	— 46.5	— 54.8	—	—
	10	1	31253	—	—	1	— 45.2	—	—	—	—

N — The number of cases the element has been observed during the month.

* The atmospheric pressure corrected to the elevation of the radiosonde stations.

UPPER AIR CLIMATOLOGICAL DATA

**TABLE B 1 (contd.).—MONTHLY MEANS AND MONTHLY ABSOLUTE HIGHER & LOWER
VALUES OF ALTITUDE, AIR TEMPERATURE & DEW POINT AT
STANDARD AND SELECTED PRESSURE SURFACES**

SEPTEMBER — 1967

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Morse Mountain 1200 U.T.	Surface	26	1013mb	101*md	1006mb	23	28.0	36.5	25.8	26	21.0
	1000	26	112	169	73	26	26.5	35.6	23.9	26	19.7
	850	25	1552	1581	1498	26	17.1	21.5	13.2	26	2.7
	700	26	3182	3228	3128	26	8.5	13.0	4.1	7	-3.1
	600	24	4444	4495	4374	24	2.0	6.0	-1.2	3	-10.0
	500	23	5887	5961	5802	23	-7.8	-3.1	-11.2	1	-19.1
	400	22	7587	7677	7474	22	-20.4	-17.6	-23.7	—	—
	300	21	9854	9785	9507	21	-35.5	-31.8	-41.9	—	—
	200	18	12304	12465	12293	16	-52.0	-49.0	-54.7	—	—
	150	16	14208	14295	14103	16	-62.4	-61.0	-61.0	—	—
	100	16	16663	16756	16549	16	-63.2	-69.5	-71.9	—	—
	70	13	18815	18920	18700	13	-61.8	-55.2	-65.7	—	—
	60	13	19773	19890	19635	13	-61.3	-58.6	-69.9	—	—
	50	12	20910	21040	20778	12	-56.6	-54.2	-59.2	—	—
	40	10	22317	22407	22203	10	-53.1	-51.2	-56.1	—	—
	30	9	24182	24267	24063	9	-49.2	-46.5	-50.9	—	—
	20	6	26834	26938	26728	6	-44.6	-41.3	-46.9	—	—
	10	1	31505	—	—	1	-38.5	—	—	—	—
Helwan 1200 U.T.	Surface	26	99*mb	998mb	989mb	26	31.1	38.4	28.6	26	13.0
	1000	26	94	129	37	—	—	—	—	—	—
	850	26	1514	1550	1490	26	18.1	25.9	14.3	25	5.2
	700	26	3153	3199	3132	26	10.7	13.3	6.8	7	-6.2
	600	26	4419	4464	4387	26	3.1	6.9	5.2	5	-14.7
	500	25	5912	5924	5825	25	-5.9	-2.7	8.3	1	-24.7
	400	25	7578	7650	7515	25	-18.8	-16.4	-21.2	—	—
	300	25	9675	9760	9578	25	-32.7	-29.8	-35.4	—	—
	200	25	12406	12526	12316	25	-51.4	-47.1	-53.1	—	—
	150	25	14239	14513	14124	25	-62.9	-60.7	-65.3	—	—
	100	24	16755	16792	1650	24	-71.1	-62.7	-74.1	—	—
	70	22	18786	18930	18700	22	-64.1	-55.0	-67.2	—	—
	60	19	19737	19889	19612	19	-61.4	-52.6	-64.5	—	—
	50	17	20872	21023	2072	17	-57.6	-53.0	-60.6	—	—
	40	16	22303	22469	22195	16	-53.5	-50.4	-57.0	—	—
	30	15	24174	24363	24049	15	-49.8	-46.5	-51.7	—	—
	20	12	26854	27073	26724	12	-46.3	-43.2	-48.6	—	—
	10	1	31439	—	—	1	-40.1	—	—	—	—
Aswan 1800 U.T.	Surface	27	986mb	988mb	982mb	27	37.0	42.4	33.5	27	7.6
	1000	27	63	87	29	—	—	—	—	—	—
	850	27	1512	1532	1490	27	23.6	30.1	19.0	25	1.5
	700	26	3189	3198	3148	25	13.4	16.3	9.2	9	-6.7
	600	24	4446	4480	4111	24	5.7	8.4	2.9	1	-9.3
	500	24	5911	5950	5861	24	-3.9	-2.1	-7.1	1	-17.3
	400	24	7637	7678	7591	24	-14.8	-10.3	-17.6	1	-28.5
	300	24	9757	9818	9689	24	-28.9	-26.1	-31.8	—	—
	200	24	12635	12637	12433	24	-50.0	-45.7	-52.9	—	—
	150	22	14300	14501	14232	22	-63.2	-57.5	-67.3	—	—
	100	21	16781	16963	16622	21	-73.6	-68.2	-76.7	—	—
	70	20	18902	19140	18720	20	-65.4	-60.1	-72.4	—	—
	60	13	19906	20098	19711	13	-59.6	-51.5	-63.8	—	—
	50	13	210.0	21280	20849	13	-54.5	-49.1	-58.5	—	—
	40	11	22506	22751	22280	11	-50.7	-45.3	-53.5	—	—
	30	11	24396	24675	24049	11	-45.5	-41.4	-51.0	—	—
	20	8	27174	27479	26828	8	-39.5	-32.3	-43.6	—	—
	10	1	31533	—	—	1	-36.7	—	—	—	—

N = The number of cases the element has been observed during the month.

* The atmospheric pressure corrected to the elevation of the radiosonde stations.

**TABLE B 2.—MEAN AND EXTREME VALUES OF THE FREEZING LEVEL AND THE TROPOPAUSE ;
THE HIGHEST WIND SPEED IN THE UPPER AIR**

SEPTEMBER — 1967

Station	Freezing Level									First Tropopause									Highest wind speed				
	Mean			Highest			Lowest			Mean			Highest			Lowest			Altitude (gpm)	Pressure (mb.)	Direction (000—360)°	Speed in Knots	
	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew Point (°C)	Altitude (gpm)	Pressure (mb.)	Dew Point (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)					
6000 U.T.	(N)	(N)	(N)							(N)	(N)	(N)											
	M. Matruh . . .	4451 (25)	598 (25)	-8.0 (5)	5000	554	—	3750	648	—	15473 (18)	121 (18)	-69.1 (18)	16388	100 (18)	-72.3	14490	140	-69.6	13450	166	280	108
	Helwan . . .	4778 (29)	572 (29)	—	5430	530	—	4000	626	—	15159 (26)	111 (26)	-69.3 (26)	16910	94	-75.8	14620	138	-70.5	11500	225	230	110
1200 U.T.	Aswan . . .	4972 (28)	500 (28)	-14.6 (3)	5420	532	—	4120	618	—	16120 (22)	110 (22)	-75.4 (22)	17720	83	-79.8	15000	128	-72.3	14370	147	190	58
	(N)	(N)	(N)							(N)	(N)	(N)											
	M. Matruh . . .	4690 (24)	580 (24)	-10.6 (3)	5520	578	—	4190	614	—	15689 (17)	118 (17)	-68.4 (17)	16960	95	-68.6 (17)	14050	152	-63.1	11075	242	274	102
	Helwan . . .	5028 (24)	562 (24)	-16.5 (3)	5610	548	—	4260	607	—	16022 (21)	112 (21)	-71.9 (21)	17080	93	-72.5 (21)	14680	138	-67.9	11140	198	220	128
	Aswan . . .	5325 (24)	538 (24)	-12.5 (1)	5660	518	—	4800	572	—	16316 (21)	108 (21)	-74.0 (21)	17530	90	-73.5 (21)	15700	120	-73.2	24275	32	120	56

N = The number of cases the element has been observed during the month.

TABLE B 3.— NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES
MERSA MATRUH (A) — SEPTEMBER 1967

Time	Pressure Surface Millibar	Wind between ranges of direction (000—360) ^a														Number of calm winds	Total number of observations (TN)	Mean scalar wind speed (Knots)				
		345	015	045	075	105	135	165	195	225	255	285	315									
		014	044	074	104	134	164	194	224	264	284	314	344									
		N	(ft)	N	(ft)	N	(ft)	N	(ft)	N	(ft)	N	(ft)	N	m	m	m					
0000 U.T.	Surface	5	10	0	—	0	—	0	—	3	8	0	—	0	—	6	5	4	11	1	26	8
	1000	4	12	1	7	1	7	0	—	3	10	0	—	0	—	2	12	0	—	7	12	0
	850	7	16	0	—	0	—	0	—	0	—	0	—	0	—	1	34	1	35	7	22	0
	700	3	10	0	—	0	—	0	—	0	—	0	—	0	—	1	27	1	28	14	27	6
	600	3	15	0	—	0	—	0	—	0	—	0	—	0	—	3	26	6	25	10	22	0
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	11	12	28	9	31	3
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	26	11	35	9	25	1
	300	1	12	0	—	0	—	0	—	0	—	0	—	0	—	4	36	11	38	5	45	3
	200	1	84	0	—	0	—	0	—	0	—	0	—	0	—	5	47	15	44	2	38	0
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	51	13	49	3	28	0
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	30	5	23	0	—	0
	70	1	5	0	—	1	7	3	9	0	—	1	5	0	—	2	22	2	8	0	—	0
	60	1	6	1	3	1	4	0	—	1	3	0	—	1	15	1	2	0	—	1	20	0
	50	0	—	0	—	0	—	6	11	0	—	0	—	0	—	1	20	0	—	0	—	0
	40	0	—	0	—	0	—	4	17	1	5	0	—	0	—	0	—	0	—	0	—	0
	30	0	—	0	—	2	30	2	24	0	—	0	—	0	—	0	—	0	—	0	—	1
	20	0	—	0	—	1	24	1	22	0	—	0	—	0	—	0	—	0	—	0	—	1
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	7	11	1	10	1	10	0	—	0	—	0	—	0	—	0	—	0	—	2	14	15
	1000	5	13	1	10	1	6	0	—	0	—	0	—	0	—	0	—	0	—	4	23	13
	850	2	16	0	—	0	—	0	—	0	—	1	8	0	—	2	15	3	19	10	19	7
	700	6	12	0	—	0	—	0	—	0	—	0	—	0	—	1	38	2	27	9	20	7
	600	4	10	0	—	1	4	0	—	0	—	0	—	0	—	0	—	7	25	6	24	5
	500	1	19	0	—	0	—	0	—	0	—	0	—	0	—	10	24	7	21	4	19	0
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	26	2	27	7	25	6
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	29	8	39	6	24	2
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	32	7	58	5	41	0
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	24	8	46	4	41	0
	100	0	—	0	—	0	—	0	—	0	—	1	4	1	25	4	16	3	33	3	16	0
	70	0	—	0	—	1	18	1	12	2	14	2	14	0	—	2	15	1	14	1	17	0
	60	0	—	0	—	0	—	4	16	1	32	1	17	0	—	0	—	2	14	0	—	0
	50	0	—	0	—	0	—	4	10	2	12	0	—	0	—	0	—	0	—	1	20	0
	40	0	—	0	—	1	17	2	15	1	12	0	—	1	10	0	—	0	—	0	—	1
	30	0	—	0	—	0	—	4	10	1	12	0	—	0	—	0	—	0	—	0	—	0
	20	0	—	0	—	1	25	0	—	0	—	0	—	0	—	0	—	1	14	1	—	0
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the element has been observed during the month.

TN = The total number of cases the wind has been observed for all directions during the month

TABLE 8-3 (contd.)—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES.

HELWAN — SEPTEMBER 1967

Time	Pressure Surface (Millibar.)	Wind between ranges of direction (000—360) ^a																Number of Calm winds	Total Number of Observations (TN)	Mean Scalar wind Speed (Knots)							
		345		015		045		075		105		135		165		195		225		255		285					
		N °	m ft	N °	m ft	N °	m ft	N °	m ft	N °	m ft	N °	m ft	N °	m ft	N °	m ft	N °	m ft	N °	m ft	N °	m ft				
0000 U.T.	Surface	14	7	7	9	2	11	0	—	1	7	0	—	0	—	1	10	0	—	1	8	3	7	0	29	8	
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	850	6	14	4	15	1	3	0	—	1	5	0	—	0	—	0	—	1	11	10	16	6	18	0	29	15	
	700	6	12	2	8	0	—	0	—	0	—	0	—	1	10	0	—	1	12	4	14	8	19	7	14	0	
	600	2	12	2	11	0	—	1	6	0	—	0	—	0	—	1	9	4	13	7	24	7	12	5	19	0	
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	12	5	29	13	22	6	22	4	11	0	
	400	1	21	1	7	0	—	0	—	0	—	0	—	0	—	2	42	4	33	15	32	4	15	2	13	0	
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	38	10	53	13	36	5	32	0	—	0	
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	61	17	46	6	51	1	47	0	—	0	
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	27	0	3	55	16	51	6	54	0	—	0	
	100	0	—	0	—	0	—	0	—	1	19	0	—	1	10	6	24	9	32	3	26	0	—	0	—	0	
	70	0	—	0	—	0	—	5	25	2	31	4	12	2	12	2	18	2	29	0	—	0	—	0	—	0	
	60	2	14	1	14	4	28	5	16	1	12	1	14	0	—	0	—	2	36	0	—	0	—	0	—	0	
	50	2	24	0	—	3	25	8	16	0	—	0	—	1	10	0	—	0	—	2	19	0	—	0	—	0	
	40	0	—	0	—	0	—	5	20	3	25	0	—	0	—	0	—	1	12	2	24	0	—	0	—	0	
	30	0	—	0	—	0	—	6	25	2	16	0	—	0	—	0	—	1	11	0	—	0	—	0	—	0	
	20	0	—	0	—	0	—	3	14	1	15	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
1200 U.T.	Surface	8	10	1	15	0	—	0	—	0	—	0	—	0	—	1	12	3	9	6	10	7	9	0	26	10	
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	850	8	11	7	10	1	14	0	—	0	—	0	—	0	—	1	8	1	9	4	18	3	14	0	25	12	
	700	2	20	0	—	0	—	0	—	0	—	0	—	0	—	6	13	2	10	8	14	6	12	0	25	13	
	600	2	10	0	—	0	—	0	—	0	—	0	—	0	—	2	16	3	15	6	17	1	14	0	25	15	
	500	3	13	0	—	0	—	0	—	0	—	0	—	0	—	1	20	5	20	7	21	4	24	5	10	0	
	400	1	21	0	—	0	—	0	—	0	—	0	—	0	—	2	22	7	31	9	24	4	43	2	14	0	
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	67	11	36	10	44	2	42	0	—	0	
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	116	8	56	15	48	1	39	0	—	0	
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	19	11	38	9	60	0	—	0	—	0	
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	13	3	23	4	13	5	26	0	—	0	
	70	0	—	0	—	0	—	2	18	5	15	1	12	4	19	0	—	0	—	0	—	0	—	0	—	0	
	60	0	—	0	—	0	—	2	14	3	24	2	17	3	13	1	31	0	—	0	—	0	—	0	—	0	
	50	0	—	0	—	0	—	4	22	3	19	3	11	0	—	0	—	0	—	0	—	0	—	0	—	0	
	40	0	—	0	—	0	—	0	—	7	21	2	10	0	—	0	—	0	—	0	—	0	—	0	—	0	
	30	0	—	0	—	1	20	3	18	4	14	1	17	0	—	0	—	0	—	0	—	0	—	0	—	0	
	20	0	—	0	—	2	8	0	—	1	17	1	14	0	—	0	—	0	—	0	—	0	—	0	—	0	
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		

N = The number of cases the element has been observed during the month.

TN = total number of cases the wind has been observed for all directions during the month.

TABLE B 3 (contd.)—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES.

ASWAN (A)— SEPTEMBER 1967

Time	Pressure Surface (Millibar)	Wind between ranges of direction (000–300)°														Number of calm winds	Total number of observations (TN)	Mean Scalar wind Speed (Knots)										
		345		015		045		075		105		135		165		195		225		255		285						
		014	044	074	104	134	164	194	224	254	284	314	344	N (ff)	N m	N m	N (ff)	N m	N m	N (ff)	N m	N m	N (ff)	N m	N m			
4:00 U.T.	Surface	12	10	2	10	0	—	0	—	0	—	0	—	0	—	0	—	1	12	5	8	9	9	0	29	10		
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	850	8	15	2	8	1	2	1	15	1	9	2	8	1	8	2	8	0	—	1	9	4	14	6	12	0	29	12
	700	3	19	0	—	0	—	1	6	0	—	1	7	1	28	4	20	5	21	6	13	4	18	4	21	0	29	18
	600	1	5	1	5	1	5	0	—	0	—	0	—	3	21	8	16	7	11	3	9	4	14	0	28	13		
	500	2	8	1	4	2	11	0	—	1	5	0	—	1	19	2	12	7	13	6	11	3	10	2	4	0	27	10
	400	1	3	0	—	2	6	0	—	0	—	1	7	0	—	2	14	9	19	7	15	2	8	2	7	0	26	14
	300	0	—	1	4	1	6	0	—	0	—	1	17	0	—	4	22	13	21	4	16	1	4	1	3	0	26	18
	200	0	—	0	—	0	—	1	12	3	11	1	16	5	14	7	26	8	30	0	—	0	—	0	—	0	25	22
	150	0	—	0	—	0	—	0	—	1	21	2	18	12	21	3	15	5	32	0	—	0	—	0	—	0	23	22
	100	0	—	0	—	1	13	2	18	4	16	6	16	3	27	1	12	1	20	1	7	0	—	0	—	0	19	18
	70	0	—	1	11	2	20	11	16	1	24	1	6	1	12	0	—	0	—	0	—	0	—	0	—	0	17	16
	60	0	—	0	—	3	15	7	17	3	18	1	8	0	—	1	4	1	7	1	8	0	—	0	—	0	17	14
	50	0	—	2	11	3	24	9	23	1	15	0	—	1	2	0	—	0	—	0	—	0	—	0	—	0	16	20
	40	0	—	1	11	4	26	6	20	1	22	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	12	21
	30	0	—	0	—	3	31	7	29	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	10	30
	20	0	—	0	—	0	—	6	36	1	25	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	7	34
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
18:00 U.T.	Surface	11	12	2	6	0	—	0	—	1	4	0	—	0	—	0	—	5	8	7	10	1	27	10	10	1	27	10
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	850	2	12	0	—	1	2	0	—	0	—	0	—	1	10	3	10	0	—	7	11	13	13	0	27	12		
	700	1	4	0	—	0	—	0	—	1	6	0	—	0	—	5	22	6	19	6	14	2	16	5	17	0	26	17
	600	0	—	1	6	2	4	0	—	0	—	2	2	1	21	5	16	6	16	3	6	2	14	2	6	0	24	11
	500	0	—	4	6	2	8	2	7	0	—	0	—	1	9	1	21	6	14	6	11	1	2	1	5	0	24	10
	400	0	—	1	4	2	8	0	—	2	12	1	7	1	8	5	16	3	17	7	14	2	10	0	—	0	24	13
	300	0	—	0	—	1	6	0	—	3	17	0	—	1	10	5	11	7	24	5	24	1	9	1	11	0	24	18
	200	0	—	0	—	0	—	1	6	1	5	3	17	3	18	8	19	8	31	0	—	0	—	0	—	0	24	22
	150	0	—	0	—	1	13	0	—	1	27	2	14	5	24	8	26	4	24	1	38	0	—	0	—	0	22	24
	100	0	—	0	—	0	—	2	19	5	20	5	19	4	21	2	13	1	18	1	19	0	—	0	—	0	20	19
	70	0	—	0	—	0	—	5	19	7	21	0	—	2	26	0	—	0	—	0	—	0	—	0	—	0	14	0
	60	0	—	0	—	0	—	4	24	7	25	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	11	25
	50	0	—	0	—	1	24	7	21	2	28	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	10	23
	40	0	—	0	—	0	—	6	32	3	27	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	9	30
	30	0	—	0	—	0	—	6	20	2	30	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	8	30
	20	0	—	0	—	9	—	1	28	0	—	1	10	0	—	0	—	0	—	0	—	0	—	0	—	0	2	19
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

N = The number of cases the element has been observed during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

REVIEW OF AGRO-METEOROLOGICAL STATIONS

EL-KASR — SEPTEMBER 1967

This month was almost normal with respect to air temperature. The mean daily air temperature at 1.5 metres above ground was slightly (0.1°C) above normal. No rain fell during the month (the normal for the monthly rainfall is 1.0 mm). The month was characterized by a heat wave on the 5th, 6th & 7th and a warm spell on the 14th. The heat wave was associated with the absolute maximum air temperature for the month (37.4°C) together with the lowest relative humidity on the 6th.

The extreme maximum soil temperature at 5 cms. depth was slightly higher (0.2°C) than the corresponding value of last September. At other depths between 10 & 100 cms, the values were lower than last September (except at 50 cm depth where the values were equal) and the differences ranged between 0.8°C at 10cm depth & 0.2°C at 100cms. The extreme minimum soil temperatures were higher than the corresponding values of last September at all depths and the differences ranged between 1.9°C at 5 cms. depth & 0.3°C at cms.

The mean daily Pan evaporation was more by 0.73 mm/s. than the corresponding value of September 1966. The total actual duration of bright sunshine was more by 14.1 hours than the corresponding value of September 1966.

TAHRIR — SEPTEMBER 1967

This month was slightly cooler and more humid than last September. The mean daily air temperature at 1.5 metres above ground was 0.3°C lower than the corresponding value of last September. The mean daily relative humidity was 2% more than the corresponding value of last September. The month was characterized by a heat wave on the 7th., 8th & 9th. This heat wave was associated with the absolute maximum air temperature for the month (38.6°C) together with the lowest value of relative humidity on the 7th.

The extreme maximum soil temperatures were higher than the corresponding values of last September at all depths apart from the 50 cms. depth where the value was slightly lower. The difference was 0.2°C for the 50cms depth, and for other depths it ranged between 1.2°C at 5cms depth & 0.1°C at 10cms. The extreme minimum soil temperatures were higher than the corresponding values of last September at all depths down to 50 cms. and the difference ranged between 2.6°C at 5cms depth and 0.1°C at 50cms. At 100cm depth the values were the same.

The mean daily Pan evaporation was less by 0.52 mm/s. than the corresponding value of September 1966. The total actual duration of bright sunshine was more by 2.2 hours than the corresponding value of September 1966.

BAHTIM — SEPTEMBER 1967

This month was slightly cooler than normal. The mean daily air temperature at 1.5 metres above ground was 24.1°C and the mean daily relative humidity was 67%. The month was characterized by a short heat wave on the 7th & 8th. This heat wave yeilded the highest maximum air temperature for the month (37.4°C) together with the lowest relative humidity on the 7th.

GIZA . . SEPTEMBER 1967

This month was slightly warmer and more humid than normal. The mean daily air temperature at 1.5 metres above ground was 0.4°C higher than normal. The mean daily relative humidity was 2% higher than normal. The month was characterized by a short heat wave on the 7th & 8th and a warm spell on the 14th. The heat wave yielded the absolute maximum air temperature for the month (39.4°C) together with the lowest relative humidity on the 7th.

The extreme maximum soil temperature at 5 cms. depth in the dry field was slightly higher (0.2°C) than the corresponding value of last September. At other depths between 10 & 100 cms. the values were lower than last September and the difference ranged between 1.7°C at 10 cms. depth and 0.4°C at 100 cms. The extreme minimum soil temperature at 5 cms. depth in the dry field was higher by 0.9°C than the corresponding value of last September. At other depths between 10 & 100 cms. the values were lower than last September and the difference ranged between 0.5° & 0.7°C.

The mean daily Pan evaporation was less by 0.61 mm/s than the corresponding value of September 1966. The total actual duration of bright sunshine was less by one hour than the corresponding value of September 1966.

KHARGA . . SEPTEMBER 1967

This month was slightly warmer than normal. The mean daily air temperature at 1.5 metres above ground was 0.7°C higher than normal. The month was characterized by two heat waves during the periods (6th-9th) and (14th-15th) respectively. The first heat wave yielded the absolute maximum air temperature for the month 42.6°C on the 7th and the lowest value of relative humidity on the 6th.

The extreme maximum soil temperatures were higher than the corresponding values of last September at depths between 5 & 20 cms and the difference ranged between 5.4°C at 5 cms. depth & 0.9°C at 20 cms. At deeper depths the extreme soil maxima were slightly lower than last September and the differences did not exceed 0.1°C. The extreme minimum soil temperatures were lower than the corresponding values of last September at all depths and the differences ranged between 2.8°C at 10 cms depth & 0.2°C at 100 cms.

The mean daily Pan evaporation was slightly more (0.04 mm.) than the corresponding value of September 1966. The total actual duration of bright sunshine was slightly less (1.1 hours) than the corresponding value of September 1966.

**Table C1.—AIR TEMPERATURE AT $1\frac{1}{2}$ METRES ABOVE GROUND
SEPTEMBER — 1967**

STATION	Air Temperature ($^{\circ}\text{C}$)					Mean Duration in hours of daily air temperature above the following values											
	Mean Max.	Mean Min.	Mean of the day	Night time mean	Day time mean	-5°C	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C	
Kasr	28.6	19.9	24.6	22.7	26.6	24.0	24.0	24.0	24.0	24.0	22.1	10.6	0.5	0.1	0.0	0.0	
air	32.7	18.2	24.8	21.2	28.4	24.0	24.0	24.0	24.0	24.0	19.5	11.0	3.9	0.1	0.0	0.0	
ntim	32.1	16.8	24.1	20.0	28.2	24.0	24.0	24.0	24.0	23.8	16.8	10.3	3.9	0.2	0.0	0.0	
a	32.2	18.9	25.7	23.1	28.3	24.0	24.0	24.0	24.0	24.0	22.3	12.9	4.0	0.2	0.0	0.0	
arga	36.5	22.0	29.6	26.8	32.6	24.0	24.0	24.0	24.0	24.0	23.3	19.5	11.2	3.5	0.3	0.0	

**Table C 2.—ABSOLUTE VALUES OF AIR TEMPERATURE AT $1\frac{1}{2}$ METRES ABOVE GROUND,
ABSOLUTE MINIMUM AIR TEMPERATURE AT 5cms ABOVE GROUND OVER
DIFFERENT FIELDS.**

SEPTEMBER — 1967

STATION	Max. Temp. at $1\frac{1}{2}$ metres ($^{\circ}\text{C}$)				Min. Temp. at $1\frac{1}{2}$ metres ($^{\circ}\text{C}$)				Min. Temp. at 5 cms. above ($^{\circ}\text{C}$)			
	Highest		Lowest		Highest		Lowest		Dry soil		Grass	
	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date
Kasr	37.4	6	26.8	22,24	23.8	8	17.7	12	14.5	12	—	—
air	38.6	7	30.6	21	22.6	8	14.7	23	13.3	23	—	—
ntim	37.4	7	30.1	23	22.1	8	13.3	23	9.9	23	—	—
a	39.4	7	30.0	20	22.9	8	16.1	20	12.6	26	12.5	26
arga	42.6	7	32.6	23	27.0	8	16.4	30	14.0	26,29	—	—

Table C 3.—(SOLAR+SKY) RADIATION, DURATION OF BRIGHT SUNSHINE, RELATIVE HUMIDITY, VAPOUR PRESSURE AT $1\frac{1}{2}$ METRES ABOVE GROUND, EVAPORATION & RAINFALL

SEPTEMBER — 1967

STATION	(Solar+Sky) Radiat. tion gm. cal/cm ²	Duration of Bright Sunshine (hours)			Relative Humidity %			Vapour pressure (mmes)				Evaporation(mmes)		Rainfall (mmes)					
		Total Actual monthly	Total Possible monthly	%	Mean of day	1200 U.T.	Lowest	Date	Mean of day	1200 U.T.	Highest	Date	Lowest	Date	Piche	Pan class A	Total Amount Monthly	Max. Fall in one day	Date
Kasr	445.8	333.0	371.5	90	71	63	30	6	16.5	17.5	21.7	7	10.8	7	7.8	10.03	0.0	0.0	—
air	528.7	303.0	370.9	82	71	45	26	7	16.2	15.4	20.4	11	11.6	25	7.0	8.14	0.0	0.0	—
ntim	—	322.4	370.8	86	67	42	28	7	14.5	14.1	19.4	8,11	9.8	23	7.1	7.77	0.0	0.0	—
a	536.4	317.9	370.8	86	65	44	24	7	15.6	15.0	19.9	11	10.5	7	8.2	9.90	0.0	0.0	—
arga	503.6	342.0	369.2	93	31	20	11	6	9.1	8.8	15.4	17	5.5	6	24.6	18.86	0.0	0.0	—

**Table C 4.—EXTREME SOIL TEMPERATURE AT DIFFERENT DEPTHS (cms)
IN DIFFERENT FIELDS**

SEPTEMBER — 1967

STATION	Highest (H) Lowest (L)	Extreme soil temperature (°C) in dry field at different depths (cms.)									Extreme soil temperature (°C) in grass field at different depths (cms.)								
		2	5	10	20	50	100	200	300	2	5	10	20	50	100	200	800		
El Kast	H	42.7	39.2	34.0	29.7	28.6	27.0	25.0	—	—	—	—	—	—	—	—	—	—	
	L	22.9	21.9	22.8	25.6	26.5	26.2	24.7	—	—	—	—	—	—	—	—	—	—	
Tahrir	H	52.4	46.0	40.0	35.1	32.4	31.9	30.2	28.7	—	—	—	—	—	—	—	—	—	
	L	24.5	23.6	24.0	27.5	29.0	29.6	29.3	28.6	—	—	—	—	—	—	—	—	—	
Bahtim	H	54.8	41.0	37.4	33.3	31.7	29.8	27.2	—	—	—	—	—	—	—	—	—	—	
	L	26.1	24.0	26.4	29.0	29.3	28.9	26.4	—	—	—	—	—	—	—	—	—	—	
Giza	H	56.9	42.3	36.2	33.7	33.0	31.4	28.5	26.7	32.9	30.5	29.2	28.1	28.0	—	—	—	—	
	L	26.3	24.9	27.2	29.7	30.7	30.3	28.2	26.2	21.5	21.2	22.1	24.1	25.5	—	—	—	—	
Kharga	H	53.7	49.7	41.7	36.8	34.6	33.3	30.8	30.0	—	—	—	—	—	—	—	—	—	
	L	18.6	22.0	26.0	29.8	31.6	32.3	30.2	29.3	—	—	—	—	—	—	—	—	—	

Table C 5.—SURFACE WIND

SEPTEMBER — 19667

STATION	Wind Speed m/sec at 1½ metres			Days with surface wind speed at 10 metres								Max. Gust (knots) at 10 metres	
	Mean of the day	Night time mean	Day time mean	≥ 10 knots	≥ 15 knots	≥ 20 knots	≥ 25 knots	≥ 30 knots	≥ 35 knots	≥ 40 knots		value	Date
El Kast	8.6	2.7	4.6	—	—	—	—	—	—	—	—	—	—
Tahrir	2.0	1.2	2.9	27	5	0	0	0	0	0	21	2,8,17,22	
Bahtim	1.8	1.2	2.5	22	3	0	0	0	0	0	19	18	
Giza	1.9	1.4	2.4	28	4	0	0	0	0	0	23	8,18	
Kharga	4.0	2.8	5.3	30	26	9	1	1	0	0	35	17	

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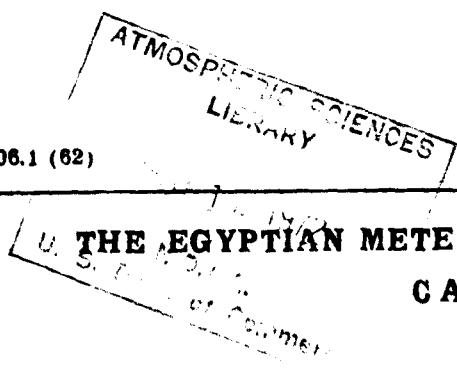
MONTHLY WEATHER REPORT

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U.S. EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

PUBLICATIONS OF THE METEOROLOGICAL AUTHORITY OF THE ARAB REPUBLIC OF EGYPT—CAIRO

In fulfilment of its duties, the Egyptian Meteorological Authority issues several reports and publications on weather, climate and agro-meteorology. The principal publications are described on this page.

Orders for publications should be addressed to :

"Chairman of the Board of Directors, Meteorological Authority, Kubri-el-Qubbeh — CAIRO".

THE DAILY WEATHER REPORT

This report is issued daily by the Meteorological Authority since the year 1901. It includes surface and upper air observations carried out by the relevant networks of the Republic at the principal hours of observations.

As from January 1968 this report was revised to include a condensed representative selection of surface and upper air observations besides the 1200 U.T. surface & 500 mb charts.

As from 1st January 1972, the Daily Weather Report will not be issued or distributed because it does not serve no longer any good purpose as it used to be in the past. The Meteorological Authority is ready to supply the recipients of the Report with any information used to be included in it, if they so desire.

THE MONTHLY WEATHER REPORT

First issued in 1909, the Monthly Weather Report served to give a brief summary of the weather conditions that prevailed over Egypt during the month, with a table showing the mean values for few meteorological elements and their deviations from the normal values. From 1954 to 1957 this report was in a rapid state of development and extension resulting into a voluminous report on January 1958 giving surface, upper air, and agro-meteorological data for Egypt.

As from January 1964, the Monthly Weather Report was pressed to give climatological data for a representative selection of synoptic stations.

THE AGRO-METEOROLOGICAL ABRIDGED MONTHLY REPORT

Gives a review of weather experienced in the agro-meteorological stations of Egypt as well as monthly values of certain elements.

THE ANNUAL REPORT

This report gives annual values and statistics for the various meteorological elements, together with a summary of the weather conditions that prevailed during all months of the year.

CLIMATOLOGICAL NORMALS FOR EGYPT

A voluminous edition was issued in March 1968 which brings normals and mean values up till 1960.

METEOROLOGICAL RESEARCH BULLETIN

First issued in January 1969 on a bi-annual basis. It includes research works carried out by members of staff of "The Meteorological Institute for Research and Training" and the Operational Divisions of the Meteorological Authority.

TECHNICAL NOTES

As from October 1970, the Meteorological Authority started to issue a new series of publications in the form of Technical Notes (non periodical) on subjects related to studies and applications of meteorology in different fields for the benefit of personnel working in these fields.



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THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

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Note : For explanatory notes on the tables please refer to Volume 1, Number 10 (January 1967).

GENERAL SUMMARY OF WEATHER CONDITIONS

OCTOBER 1967

Normal autumn weather intervened with three heat waves. Light & subnormal rain in the north, associated occasionally with thunder and lightning.

GENERAL DESCRIPTION OF WEATHER

The prevailing weather this month was generally mild in the northern & central parts and rather hot in the southern parts. Light rain fell over Lower Egypt & Cairo and was associated sometimes with thunderstorms and lightning over the Mediterranean coast ; the monthly rainfall was subnormal in general. Early morning low clouds and mist formed frequently over few localities in Delta, Canal & Cairo areas.

PRESSURE DISTRIBUTION

The most outstanding features of pressure distribution over the surface maps were :

- The Siberian anticyclone.
- The Atlantic anticyclone and its south-east extension towards the Mediterranean.
- A local anticyclone moving eastwards through Central & Southern Europe.
- The deep northern low pressure systems and their extension through Central Europe.
- Thermal low pressure over Arabia & Sudan.

The barometric pressure in Egypt was subjected to five falls round the periods : 1st-4th), (9th-11th), (16th-18th), (22nd-25th) & (27th-31st) respectively.

The pressure fall during the first two periods was due to the extension of the monsoon thermal troughs from Iraq through East Mediterranean.

During the third and fourth periods, the pressure fall was caused by the slight deepening and elongation of a thermal trough from Sudan through North Arabia & East Mediterranean.

The fifth and last pressure fall occurred as a result of the eastward travel of a secondary depression which developed over Central Mediterranean south of Malta on the 27th and traversed East Mediterranean by the end of the month.

During the rest periods of the month, the barometric pressure in Egypt was above normal and high pressure over the Atlantic or the Black Sea area extended to East Mediterranean.

The important features of pressure distribution over the 700 & 500 mb upper charts were :

- Two deep low pressure systems, one over North Atlantic and the other over North Urasia, and their extensions through middle latitudes.
- Transit of two slow moving secondary lows through East Mediterranean on the 5th & 26th.
- High pressure system over the subtropical latitudes south of 30°N.

SURFACE WIND

The most prevailing winds during this month were light to moderate Nly and NWly in general. Winds veered to NEly and backed to SWly during few days.

Fresh and strong winds blew occasionally for several days in few localities of the Mediterranean coast, Western Desert & Red Sea districts.

Calms were mostly frequent during night & early morning intervals in scattered places.

TEMPERATURE

Maximum temperature showed moderate variability during this month. It was moderately above normal in the heat waves round the periods (5th-8th), (19th-23rd) & (27th—31st) and slightly below normal the rest of the month in the northern & central parts. In the southern parts maximum temperature remained moderately below normal most of the month. Maximum temperature values ranged generally between 25°C & 30°C in the northern parts, between 28°C & 33°C in the central parts and between 32°C & 38°C in the southern parts.

The absolute maximum temperature was 38.6°C reported at Kharga on the 30th.

Minimum temperature showed also moderate variability. It oscillated slightly round normal in the northern & central parts and moderately below normal most of the month in the southern parts. Minimum temperature values ranged generally between 15°C & 21°C in the northern & southern parts and between 13°C & 19°C in the central parts.

The absolute minimum temperature was 10.2°C reported at Borg El Arab & Dakhla on the 14th & 20th respectively.

PRECIPITATION

Rain fell during two periods : (10th-14th) & (20th-30th), it was mostly over the Mediterranean coast and extended southwards through Lower Egypt, Cairo on few days. Rain was generally light, and its monthly amounts were below normal, apart from few localities where it exceeded slightly its normal.

The highest daily rainfall was 32.2 mm reported at Sidi Barrani on the 24th.

The highest monthly rainfall was 38.8 mm reported also at Sidi Barrani.

Cairo, January 1971

Chairman (M. F. TAHA)
Board of Directors

**Table A 1.— MONTHLY VALUES OF THE ATMOSPHERIC PRESSURE, AIR TEMPERATURE,
RELATIVE HUMIDITY, BRIGHT SUNSHINE DURATION & PICHE EVAPORATION**

STATION	Atmospheric Pressure (mbs) M.S.L		Air Temperature °C												Relative Humidity %			Bright Sunshine Duration (Hours)			Piche Evaporation mm. Mean
			Maximum		Minimum		Dry Bulb		Wet Bulb												
	Mean	D.F. Normal or Average	(A) Mean	D.F. Normal or Average	(B) Mean	D.F. Normal or Average	A+B 2	Mean	D.F. Normal or Average	Mean	D.F. Normal or Average	Mean	D.F. Normal or Average	Mean	D.F. Normal or Average	Total Actual	Total Possible	%			
Sallum	1015.8	-0.4	26.4	-1.0	18.1	+0.2	22.2	22.0	-0.6	17.4	-0.8	61	-3	-	-	-	-	-	7.2		
Mersa Matruh. (A)	1015.8	-0.6	26.7	-0.3	16.5	-0.3	21.6	21.2	-0.5	17.0	-0.8	64	-2	-	-	-	-	-	7.7		
Alexandria . (A)	1015.6	-0.2	27.9	-0.1	17.7	0.0	22.8	22.3	-0.4	18.0	-0.8	64	-4	292.9	354.2	83	6.3	6.3			
Port Said . (A)	1014.7	-0.4	26.4	-0.9	20.9	-0.8	23.6	23.5	-0.6	19.5	-0.8	67	-2	296.7	354.2	84	7.1	7.1			
El Arish	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Ghazza	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Tanta	1014.5	-0.4	29.4	-0.7	16.3	+0.8	22.4	22.1	0.0	17.5	-0.5	61	-4	283.9	354.5	80	5.2	5.2			
Cairo (A)	1014.8	-0.4	29.4	-0.5	17.7	-0.1	23.6	23.1	-0.4	17.3	-0.9	53	-5	-	-	-	-	13.3			
Fayoum.	1013.8	-0.6	30.4	-1.0	16.1	-1.2	23.2	23.0	-1.1	17.6	-0.4	56	+2	-	-	-	-	-			
Minya (A)	1014.7	-0.5	30.9	-0.5	14.3	-1.3	22.6	22.2	-1.0	16.8	-0.7	55	0	319.0	356.8	89	6.1	6.1			
Assyout (A)	1014.2	+0.6	31.1	0.0	16.8	-1.2	24.0	23.6	-0.8	15.9	-1.4	40	-6	-	-	-	-	10.8			
Luxor (A)	1012.8	+1.1	33.1	-2.0	15.4	-2.2	24.2	24.9	-0.0	17.0	-0.9	41	+2	-	-	-	-	14.3			
Aswan (A)	1012.3	+1.1	34.0	-2.9	16.6	-2.8	25.0	26.0	-2.2	15.3	-0.5	26	+6	-	-	-	-	9.0			
Siwa	1014.9	-1.1	30.3	-1.3	15.1	+0.2	22.7	22.6	-0.5	15.5	-0.5	43	-1	-	-	-	-	16.8			
Bahariya	1014.8	+0.3	30.6	-0.5	16.1	+0.1	23.4	23.3	-0.5	15.9	-0.7	42	-7	-	-	-	-	9.6			
Farafra	1016.2	0.0	30.7	-0.4	14.8	-0.6	22.8	22.4	-0.8	14.8	0.0	40	+4	-	-	-	-	8.1			
Dakhla	1015.1	+2.2	31.6	-0.6	14.6	-2.5	23.2	23.0	-1.7	14.0	-1.1	31	+1	-	-	-	-	12.6			
Kharga	1013.7	+1.2	32.4	-1.7	17.2	-1.2	24.8	25.4	-0.3	15.2	-1.0	28	-5	325.5	359.2	91	15.0	15.0			
Tor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17.9			
Hurghada	1012.4	+0.3	28.8	+0.1	18.6	-1.0	23.8	24.0	-0.9	18.0	-1.2	53	-3	-	-	-	-	13.1			
Quseir	1018.0	+0.8	28.9	-1.2	21.4	-1.4	25.2	25.2	-0.7	18.9	-0.7	52	1	-	-	-	-	14.2			

Table A 2 — MAXIMUM AND MINIMUM AIR TEMPERATURE

OCTOBER — 1967

Station	Maximum Temperature °C										Grass Min. Temp.		Minimum Temperature °C									
	Highest	Date	Lowest	Date	No. of Days with Max-Temp.					Mean	Dev. From Normal	Highest	Date	Lowest	Date	No. of Days with Min. Temp.						
					>25	>30	>35	>40	>45							<10	<5	<0	<-5			
Sallum	35.1	7	23.5	25	19	3	1	0	0	17.4	—	21.5	8	14.2	23	0	0	0	0	0	0	
Mersa Matruh (A)	33.8	7	23.8	25	22	1	0	0	0	20.4	—	13.2	18	0	0	0	0	0	0	0	0	
Alexandria . (A)	31.4	21	25.7	11	31	4	0	0	0	23.1	—	14.2	27	0	0	0	0	0	0	0	0	
Port Said . (A)	27.9	31	24.6	14	27	0	0	0	0	18.9	—	18.0	12	—	—	—	—	—	—	—	—	
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Tanta	34.8	30	25.8	11	31	11	0	0	0	19.0	—	14.4	14	0	0	0	0	0	0	0	0	
Cairo . . . (A)	32.7	29,30	25.4	11	31	11	0	0	0	20.2	2.31	14.7	12	0	0	0	0	0	0	0	0	
Fayoum	35.1	8	27.3	10	31	15	1	0	0	13.7	—	20.4	31	13.2	12	0	0	0	0	0	0	
Minya . . . (A)	35.7	30	27.2	12	31	17	2	0	0	10.8	—	18.0	1	11.2	20	0	0	0	0	0	0	
Assyout . . . (A)	36.7	8	27.5	12	31	18	3	0	0	15.3	—	19.5	31	14.5	13	0	0	0	0	0	0	
Luxor . . . (A)	36.5	9	30.0	26	31	30	6	0	0	10.4	—	20.0	11	13.3	27	0	0	0	0	0	0	
Aswan . . . (A)	37.6	29	31.0	16	31	31	9	0	0	—	—	23.0	10	13.6	27	0	0	0	0	0	0	
Siwa	37.4	8	26.8	24	31	17	2	0	0	13.4	—	19.6	29	12.0	23	0	0	0	0	0	0	
Bahariya	35.7	9	27.1	25	31	18	2	0	0	14.3	—	20.2	1	13.0	21	0	0	0	0	0	0	
Farafra	35.6	9	26.0	12	31	19	2	0	0	14.0	—	18.8	31	11.7	19.20	0	0	0	0	0	0	
Dakhla	37.4	30	27.2	12	31	20	5	0	0	—	—	20.5	9	10.2	20	0	0	0	0	0	0	
Kharga	38.6	30	29.0	12-16	31	24	5	0	0	15.1	—	24.0	30	12.2	13	0	0	0	0	0	0	
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Hurghada	31.8	31	26.2	12	31	4	0	0	0	17.8	—	22.8	10	16.4	13.28	0	0	0	0	0	0	
Quseir	33.2	31	26.7	12	31	3	0	0	0	20.3	—	24.0	10	18.0	5	0	0	0	0	0	0	

Table A 3.—SKY COVER AND RAINFALL.

OCTOBER — 1967

Station	Mean Sky Cover Oct.					Rainfall mmns.									
	00 U.T.	06 U.T.	12 U.T.	18 U.T.	Daily Mean	Total Amount	D. From Normal	Max. Fall in one day		Number of Days with Amount of Rain					
	Amount	Date	<0.1	≥0.1	≥1.0	≥5.0	≥10	≥25	≥50						
Sallum	3.7	3.1	4.2	2.4	3.1	13.0	— 4.1	7.2	22	2	4	2	1	0	0
Marsa Matruh . . (A)	1.3	3.2	4.0	2.3	2.1	1.8	—14.4	0.9	24	2	4	0	0	0	0
Alexandria . . . (A)	2.2	3.8	4.2	2.8	2.3	2.1	— 7.1	1.2	10	2	2	1	0	0	0
Port Said . . . (A)	—	2.1	2.2	1.5	—	2.0	— 5.0	1.8	31	0	2	1	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghezze	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	0.3	1.2	3.3	0.6	1.1	0.3	— 4.1	0.2	10	0	2	0	0	0	0
Cairo (A)	1.2	1.8	3.9	1.4	2.2	0.6	— 0.2	0.6	17	0	1	0	0	0	0
Fayoum	—	1.1	3.3	1.5	—	0.0	— 0.9	0.0	—	0	0	0	0	0	0
Minya	0.5	1.0	1.6	0.5	0.7	0.0	— 0.6	0.0	—	0	0	0	0	0	0
Assyout (A)	0.6	1.0	1.1	0.6	0.8	0.0	— Tr.	0.0	—	0	0	0	0	0	0
Luxor (A)	0.7	1.2	1.1	1.4	1.1	0.0	— 0.1	0.0	—	0	0	0	0	0	0
Aswan (A)	0.6	1.7	1.4	1.2	1.0	0.0	— Tr.	0.0	—	0	0	0	0	0	0
Siwa	1.3	1.5	3.5	1.1	1.5	0.7	+ 0.4	0.6	29	0	2	0	0	0	0
Bahariya	0.7	1.5	2.5	1.3	1.5	0.0	— 0.3	0.0	—	0	0	0	0	0	0
Farafra	—	1.2	1.7	1.0	—	0.0	— 1.0	0.0	—	0	0	0	0	0	0
Dakhla	0.3	0.6	0.9	0.3	0.4	0.0	— Tr.	0.0	—	0	0	0	0	0	0
Kharga	0.4	0.7	1.1	0.6	0.8	0.0	— Tr.	0.0	—	0	0	0	0	0	0
Tor.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1.1	1.5	1.8	1.6	1.6	0.0	— 0.1	0.0	—	0	0	0	0	0	0
Quseir	0.5	1.8	1.6	1.5	1.1	Tr.	— 0.6	Tr.	9	1	0	0	0	0	0

Table A 4.—DAYS OF OCCURRENCE OF MISCELLANEOUS WEATHER PHENOMENA.

OCTOBER — 1967

Station	Precipitation				Frost	Thunderstorm	Mist Vis ≥ 1000 Metres	Fog Vis < 1000 Metres	Haze Vis ≥ 1000 Metres	Thick Haze Vis < 1000 Metres	Dust or Sandrising Vis ≥ 1000 Metres	Dust or Sandstorm Vis < 1000 Metres	Gale	Clear Sky	Cloudy Sky		
	Rain	Snow	Ice. Pellets	Hail													
Sallum	4	0	0	0	0	2	0	0	0	0	0	1	0	0	0	8	•
Mersa Matruh . . . (A)	4	0	0	0	0	3	1	0	0	0	0	0	0	0	0	8	•
Alexandria . . . (A)	2	0	0	0	0	1	1	0	0	0	0	0	0	0	0	—	—
Port Said (A)	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	—	—
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	2	0	0	0	0	0	2	1	0	0	0	0	0	0	0	26	•
Cairo (A)	1	0	0	0	0	0	7	0	7	0	2	0	0	0	0	13	0
Fayoum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	—	—
Minya (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	0
Assyout (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27	•
Luxor (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0
Aswan (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	0
Siwa	2	0	0	0	0	0	0	0	0	0	2	0	0	0	0	16	0
Bahariya	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0
Farafra	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	—	—
Dakhla	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29	0
Kharga	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	—	—
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghda	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0
Quseir	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0

TABLE A 5.—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES

OCTOBER — 1967

Station	calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated													All directions
					345	015	045	075	105	135	165	195	225	255	285	315		
					/	/	/	/	/	/	/	/	/	/	/	/		
Sallum	14	2	0	1—10	48	83	123	36	16	13	7	8	34	71	102	128	669	669
				11—27	2	1	3	11	1	0	0	1	13	7	12	8	59	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	50	84	126	47	17	13	7	9	47	78	114	136	728	
Mersa Matruh (A)	9	5	0	1—10	110	77	29	13	55	16	7	57	76	90	25	61	616	616
				11—27	25	3	17	4	5	10	1	10	14	3	0	22	114	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	135	80	46	17	60	26	8	67	90	93	25	83	730	
Alexandria . . (A)	15	0	0	1—10	108	58	42	35	60	5	22	21	10	9	44	97	561	561
				11—27	37	19	7	9	0	0	2	2	1	7	40	44	168	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	143	77	49	44	60	55	24	23	11	16	84	141	729	
Port Said . . (A)	2	3	3	1—10	156	93	43	33	15	22	12	15	37	53	18	69	566	566
				11—27	68	4	14	3	0	0	0	3	5	29	21	23	170	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	224	97	51	36	15	22	12	18	42	82	39	92	736	
Tanta	68	0	0	1—10	76	36	49	45	9	6	21	95	51	79	97	102	666	666
				11—27	4	0	0	0	0	0	0	0	0	1	1	4	10	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	80	36	49	45	9	6	21	95	51	80	98	106	676	
Cairo . . . (A)	42	0	1	1—10	54	77	55	46	12	12	16	21	89	0	91	97	564	564
				11—27	12	41	15	15	19	0	3	4	10	0	7	11	137	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	66	118	70	61	31	12	13	35	99	0	98	108	701	
Fayoum	26	3	0	1—10	239	149	17	16	10	13	12	25	40	39	34	110	704	704
				11—27	0	11	0	0	0	0	0	0	0	0	0	0	0	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	239	160	17	16	10	13	12	25	40	39	34	110	715	
Minya (A)	36	77	6	1—10	250	47	2	1	2	14	8	3	13	24	15	155	534	534
				11—27	57	10	0	0	0	0	0	0	4	0	0	20	91	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	307	51	2	1	2	14	8	3	17	24	15	175	625	
Asyout (A)	21	3	11	1—10	21	6	8	10	10	9	0	0	35	238	130	67	534	534
				11—27	23	4	0	0	0	0	0	1	2	17	37	91	175	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	44	10	8	10	10	9	0	1	37	255	167	158	700	

Table A 5 (contd.)—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES

OCTOBER — 1967

Station	calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated													All directions
					345	015	045	075	105	135	165	195	225	255	285	315		
					/	014	044	074	104	134	164	194	224	254	284	314	344	
Luxor (A)	6	1	0	1-10	98	33	20	37	19	50	113	42	30	61	83	149	785	
				11-27	0	0	0	0	0	0	0	0	0	0	0	1	1	
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	98	33	20	37	19	50	113	42	30	61	84	150	737	
Aswan (A)	0	0	0	1-10	217	216	12	6	11	3	1	0	0	2	14	95	577	
				11-27	77	65	0	1	1	0	0	0	0	0	2	21	167	
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	294	281	12	7	12	3	1	0	0	2	16	116	744	
Niwa	52	37	3	1-10	38	37	50	34	34	14	3	30	73	125	118	67	623	
				11-27	1	8	0	0	4	8	3	2	5	2	1	0	29	
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	39	40	50	34	38	22	6	32	78	127	119	67	652	
Dakhla	22	7	3	1-10	57	27	21	8	33	7	0	35	43	74	158	173	636	
				11-27	33	17	3	0	0	0	0	0	0	0	0	0	23	
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	90	44	24	8	33	7	0	35	43	74	158	196	712	
Kharga	7	1	7	1-10	149	52	20	8	6	4	3	1	4	10	61	256	574	
				11-27	47	1	0	0	0	0	0	0	0	0	0	0	107	
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	196	53	20	8	6	4	3	1	4	10	61	363	729	
Hurghada	15	0	0	1-10	25	60	12	5	9	7	1	2	3	5	73	85	287	
				11-27	92	55	0	0	1	0	0	0	0	1	164	129	442	
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	117	115	19	5	10	7	1	2	3	6	237	214	729	
Quseir	5	19	4	1-10	49	17	6	8	2	3	9	11	72	181	89	62	509	
				11-27	18	2	0	0	0	0	1	0	1	8	73	104	207	
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	67	19	6	8	2	3	10	11	73	189	162	166	716	

UPPER AIR CLIMATOLOGICAL DATA

**Table B 1.— MONTHLY MEANS AND MONTHLY ABSOLUTE HIGHER & LOWER
VALUES OF ALTITUDE, AIR TEMPERATURE & DEW POINT AT
STANDARD AND ELECTED PRESSURE SURFACES**

OCTOBER — 1967

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Helwan 0000 U.T.	Surface	31	998mh.	*	*	31	19.8	25.8	16.4	31	16.6
	1000	31	128	149	100	11	19.0	20.4	16.4	11	14.3
	850	31	1516	1563	1478	31	13.3	20.1	8.2	30	1.6
	700	31	3120	3186	3063	31	3.9	9.0	— 2.1	18	— 8.6
	600	31	4356	4411	4275	31	— 3.6	2.9	— 7.6	10	— 15.2
	500	30	5770	5849	5671	30	— 13.6	— 7.9	— 17.6	7	— 19.5
	400	28	7428	7540	7309	28	— 26.1	— 20.2	— 30.4	5	— 32.3
	300	28	9448	9602	9301	28	— 41.0	— 36.3	— 45.4	—	—
	200	26	12115	12314	11922	26	— 55.8	— 53.3	— 59.0	—	—
	150	25	13919	14116	13725	25	— 62.3	— 57.1	— 67.8	—	—
	100	23	16395	16599	16205	23	— 66.9	— 60.5	— 73.7	—	—
	70	18	18577	18816	18450	18	— 64.2	— 60.3	— 70.2	—	—
	60	18	19523	19779	19359	18	— 62.2	— 58.0	— 68.7	—	—
	50	17	20656	20916	20476	17	— 59.3	— 55.7	— 67.0	—	—
	40	13	22056	22310	21867	13	— 58.4	— 55.0	— 66.6	—	—
	30	8	23825	23950	23652	8	— 56.9	— 54.0	— 64.3	—	—
	20	5	26387	26560	26222	5	— 52.0	— 47.7	— 57.5	—	—
	10	1	30758	—	—	1	— 43.2	—	—	—	—

N — Number of observation of specified pressure surface.

* The atmospheric pressure corrected to the elevation of the radiosonde station.

Note. Climatological upper air data for Mersa Matruh at 0000 & 1200 U.T., Helwan at 1200 U.T., Aswan at 0000 & 1200 U.T. are missing since number of days of release of radiosonde sets at these stations are less than the permissible number needed for calculating or processing monthly values.

**Table B 2.—MEAN AND EXTREME VALUES OF THE FREEZING LEVEL AND THE TROPOPAUSE ;
THE HIGHEST WIND SPEED IN THE UPPER AIR**

OCTOBER — 1967

Station	Freezing Level						First Tropopause						Highest wind speed			
	Mean		Highest		Lowest		Mean		Highest		Lowest		Altitude (gpm)	Pressure (mb.)	Speed in Knots	
	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Direction (0°—360)	
M. Matruh (A)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Helwan . . .	3755 (31)	649 (31)	-10.0 (13)	4800	572	—	2740	728	—	3.7	13940 (21)	153 (21)	-63.6 (21)	15640 (21)	113	—
Aswan . . (A)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
0000 U.T.																

Table B 3.—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES
HELWAN — OCTOBER 1967

Time	Pressure Surface (Millibar)	Wind between specified ranges of direction (000—360) ^o															Number of Calm winds	Total Number of Observations (TN)	Mean Scalar wind Speed (Knots)											
		345		015		015		075		105		135		165		195		225		255		285		315						
		014	044	074	104	134	164	194	224	254	284	314	344	N	m	N	m	N	m	N	m	N	m							
0000 U.T.	Surface	8	6	5	9	3	14	6	9	0	—	0	—	0	—	0	—	1	5	0	—	6	6	2	31	7				
	1000	4	12	3	7	0	—	1	11	0	—	0	—	0	—	0	—	0	—	0	—	3	10	0	11	10				
	850	5	13	5	16	2	12	0	—	1	2	0	—	1	3	0	—	2	14	6	11	6	12	3	10	0	31	12		
	700	2	15	1	22	2	10	1	12	0	—	0	—	1	4	3	10	4	16	5	17	6	18	6	16	0	31	15		
	600	2	10	0	—	0	—	0	—	0	—	0	—	6	15	6	19	9	24	5	20	3	11	0	31	19	0	31		
	500	0	—	0	—	0	—	0	—	0	—	0	—	3	16	8	25	13	27	6	22	0	—	0	30	24	0	30		
	400	0	—	0	—	0	—	0	—	0	—	0	—	2	23	8	34	12	36	6	25	0	—	0	28	32	0	28		
	300	0	—	0	—	0	—	0	—	0	—	0	—	2	42	12	45	10	48	3	40	0	—	0	27	46	0	27		
	200	0	—	0	—	0	—	0	—	0	—	0	—	1	24	10	61	7	65	4	47	0	—	0	22	58	0	22		
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	7	56	7	49	4	45	0	—	0	18	51	0	18		
	100	0	—	0	—	0	—	0	—	0	—	1	36	0	—	0	—	4	40	5	34	1	37	0	—	0	11	36	0	11
	70	0	—	0	—	0	—	2	22	0	—	0	—	4	18	2	50	0	—	1	14	0	—	1	12	0	10	24	0	10
	60	1	15	0	—	0	—	2	10	0	—	0	—	0	—	1	18	3	16	2	7	0	—	0	—	0	9	13	0	9
	50	0	—	1	17	1	20	0	—	1	29	0	—	0	—	0	—	0	—	5	13	0	—	0	—	0	8	16	0	8
	40	1	17	0	—	0	—	2	22	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	3	21	0	3
	30	0	—	0	—	0	—	1	57	0	—	1	14	0	—	0	—	0	—	1	16	0	—	0	—	0	3	29	0	3
	20	0	—	0	—	0	—	1	28	0	—	0	—	1	4	0	—	0	—	0	—	0	—	0	—	0	2	16	0	2
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

N = The number of cases the element has been observed direction during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

REVIEW OF AGRO-METEOROLOGICAL STATIONS

EL KASR — OCTOBER 1967

This month was slightly cooler and less rainy than normal. The mean daily air temperature in the screen was 0.8°C below normal. The total monthly rainfall was 1.0 mms. less than normal. The month was characterized by a heat wave during the period (6th-8th) yielding the absolute maximum air temperature for the month (33.3°C) on the 7th and two weak heat waves during the periods (20th-22nd) and (28th-30th). The daily maximum air temperatures in the period 9th-19th were below normal.

The extreme maximum soil temperatures were lower than the corresponding values of last October at depths between 5 & 20 cms. and the difference ranged between 1.3°C at 10 cms. depth and 0.8°C at 20 cms. At depths between 50-100 cms. the extreme soil maxima were slightly higher and the difference ranged between 0.3°C & 0.4°C . The extreme minimum soil temperatures were lower than the corresponding values of last October at all depths between 5 & 100 cms. and the difference ranged between 1.5°C at 10 cms depth and 1.0°C at 100 cms.

The mean daily pan evaporation was 0.20 mms. more than the corresponding value of October 1966. The total actual duration of bright sunshine was 21.3 hours less than the corresponding value of October 1966.

TAHRIR — OCTOBER 1967

This month was slightly cooler and drier than last October. The mean daily air temperature at 1.5 metres above ground and the mean daily relative humidity were lower than the corresponding values of last October by 1.4°C and 3% respectively. No rain fell during the month apart from trace on the 26th and 31st. The month was characterized by a warm spell on 8th and two moderate heat waves during the periods (21st-24th) and (30th-31st) respectively. The first heat wave was associated with the lowest value of relative humidity (25%) on both the 21st and 23rd. The second wave was associated with the absolute maximum air temperature for the month (34.9°C) on the 30th. A cold spell occurred between 10th and 14th.

The extreme maximum soil temperatures were lower than the corresponding values of last October at all depths between 5 & 100 cms. except at 50 cms. depth where the value was slightly higher. The difference for the 50 cms. depth was 0.2°C , and for other depths it ranged between 1.9°C at 10 cms & 0.1°C at 100 cms. The extreme minimum soil temperature at 5 cms. depth was 0.4°C higher than the corresponding value of last October. At other depths between 10 and 100 cms. the extreme minima were lower and the differences ranged between 1.2°C and 0.8°C .

The mean daily pan evaporation was 0.46 mms. less than the corresponding value of October 1966. The total actual duration of bright sunshine was 25.2 hours less than the corresponding value of October 1966.

BAHTIM — OCTOBER 1967

This month was slightly cooler and drier than normal. No rain fell during the month apart from trace on the 24th. The month was characterized by three weak heat waves during the periods : (8th-9th), (21st-24th), & (30th-31st) respectively. The first heat wave yielded the absolute maximum air temperature for the month (33.1°C) on the 8th. The second wave yielded the lowest value of relative humidity (20%) on the 21st. A cool spell occurred during the period (10th-12th).

GIZA — OCTOBER 1967

This month was slightly cooler and drier than normal. The mean daily air temperature at 1.5 metres above ground was 0.4°C lower than normal and the mean daily relative humidity was 4% less than normal. The total monthly rainfall (2.0 mms) was less by 1.5 mms. than normal. The month was characterized by three weak heat waves during the periods : (8th-9th), (21st-24th) and (30th-31st) respectively. The first heat wave yielded the absolute maximum air temperature for the month (33.6°C) on the 8th. The second wave yielded the lowest value of relative humidity (24%) on the 22nd. A cold spell occurred in the period (10th-14th).

The extreme maximum soil temperatures in the dry field were lower than the corresponding values of last October at all depths between 5 & 100 cms. (except at 20 cm depth where the values were the same) and the differences ranged between 2.2°C at 5 cms. depth and 0.4°C at 50 cms. depth. The extreme minimum soil temperature at 5 cms. depth in the dry field was slightly higher (0.1°C) than the corresponding value of last October. At other depths between 10 and 100 cms. the extreme minima were lower and the differences ranged between 1.9°C and 1.0°C .

The mean daily pan evaporation was 1.17 mms. less than the corresponding value of October 1966. The total actual duration of bright sunshine was 26.9 hours less than corresponding value of October 1966.

KHARGA — OCTOBER 1967

This month was slightly cooler than normal. The mean daily air temperature at 1.5 metres above ground was 0.5°C lower than normal. The month was characterized by two heat waves during the periods : (8th-9th) & (28th-31st) respectively. The first heat wave was associated with the lowest value of relative humidity (12%) on the 9th. The second heat wave was associated with the absolute maximum air temperature for the month (38.6°C) on the 30th. A moderate cold wave occurred in the period 11th-20th.

The extreme maximum soil temperatures were lower than the corresponding values of last October at all depths between 5 & 100 cms. and the difference was highest (1.8°C) at 20 cm. depth and lowest (0.8°C) at 100 cms. The extreme minimum soil temperatures were lower than the corresponding values of last October at all depths between 5 & 100 cms. and the difference was highest (2.0°C) at 10 cms. depth and lowest (1.0°C) at 20 cms.

The mean daily pan evaporation was 4.76 mms. less than the corresponding value of October 1966. The total actual duration of bright sunshine was 11.1 hours less than the corresponding value of October 1966.

**Table C 1. — AIR TEMPERATURE AT $1\frac{1}{2}$ METRES ABOVE GROUND
OCTOBER — 1967**

STATION	Air Temperature ($^{\circ}\text{C}$)					Mean Duration in hours of daily air temperature above the following values										
	Mean Max.	Mean Min.	Mean of the day	Night time mean	Day time mean	—5°C	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C
El Ksar	26.4	16.5	21.3	19.0	23.7	24.0	24.0	24.0	24.0	22.9	16.1	3.2	0.1	0.0	0.0	0.0
Tahrir	29.8	15.4	22.0	18.5	25.5	24.0	24.0	24.0	24.0	23.2	14.3	7.2	0.6	0.0	0.0	0.0
Bahtim	29.6	14.0	21.4	17.5	25.3	24.0	24.0	24.0	24.0	20.5	13.3	6.8	0.7	0.0	0.0	0.0
Giza	29.6	15.5	22.6	19.8	25.5	24.0	24.0	24.0	24.0	23.5	16.4	7.5	0.8	0.0	0.0	0.0
Kharga	32.4	17.2	25.4	22.1	28.6	24.0	24.0	24.0	24.0	23.6	20.0	12.5	4.7	0.5	0.0	0.0

**Table C 2 — EXTREME VALUES OF AIR TEMPERATURE AT $1\frac{1}{2}$ METRES ABOVE GROUND,
ABSOLUTE MINIMUM AIR TEMPERATURE AT 5cms ABOVE GROUND OVER
DIFFERENT FIELDS**

OCTOBER — 1967

STATION	Max. Temp. at $1\frac{1}{2}$ metres ($^{\circ}\text{C}$)				Min. Temp. at $1\frac{1}{2}$ metres ($^{\circ}\text{C}$)				Min. Temp. at 5 cms. above ($^{\circ}\text{C}$)			
	Highest		Lowest		Highest		Lowest		Dry soil		Grass	
	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date
El Ksar	33.3	7	23.1	25	21.2	9	13.0	18	10.6	18	—	—
Tahrir	34.9	30	26.3	11	19.0	1	13.1	27	11.0	21	—	—
Bahtim	33.1	8	26.4	11	18.0	31	10.8	12	8.1	12	—	—
Giza	33.6	8	25.6	11	20.6	31	10.6	12	8.0	12	7.8	12
Kharga	38.6	30	29.0	12,16	24.0	30	12.2	13	10.1	13	—	—

Table C 3.—SOLAR+SKY RADIATION, DURATION OF BRIGHT SUNSHINE, RELATIVE HUMIDITY, VAPOUR PRESSURE AT $1\frac{1}{2}$ METRES ABOVE GROUND, EVAPORATION & RAINFALL

OCTOBER — 1967

STATION	(Solar+Sky) Radiation gm. cal/cm ²	Duration of Bright Sunshine (Hours)			Relative Humidity			Vapour pressure (mm's)				Evaporation (mm's)	Rainfall (mm's)						
		Total monthly	Actual monthly	Total Possible monthly	Mean of day	1200 U.T.	Lowest	Date	Mean of day	1200 U.T.	Highest	Date	Lowest	Date	Piche	Pan class (A)	Total Amount Monthly	Max. Fall in one day	Date
El Ksar	335.2	285.7	353.9	81	67	55	28	22	12.7	13.3	19.0	8	7.8	22	6.7	7.98	10.2	4.4	24
Tahrir	392.7	280.4	355.0	79	69	43	25	21,23	13.2	12.3	18.6	30,31	7.8	23	6.1	5.91	Tr.	Tr.	26,31
Bahtim	—	279.5	355.5	79	61	39	20	21	11.3	11.1	17.2	1	6.3	21	7.4	6.22	Tr.	Tr.	24
Giza	406.7	278.4	355.5	78	61	40	24	22	12.3	11.6	18.3	1	7.6	12	6.8	6.61	2.0	2.0	17
Kharga	417.0	325.5	359.2	91	34	23	12	9	8.0	8.0	14.1	10	5.1	9	17.9	12.71	0.0	0.0	—

**Table C 4.—EXTREME SOIL TEMPERATURE AT DIFFERENT DEPTHS
IN DIFFERENT FIELDS**

OCTOBER — 1967

STATION	Highest Lower	Extreme soil temperature (°C) in dry field at different depths (cms.)										Extreme soil temperature (°C) in grass field at different depths (cms.)										
		0.3	1	2	5	10	20	50	100	200	300	0.3	1	2	5	10	20	50	100	200	300	
El Kasm . . .	H	—	—	37.5	34.6	30.6	27.6	26.6	26.2	25.0	—	—	—	—	—	—	—	—	—	—	—	
	L	—	—	16.2	16.2	17.7	20.6	22.5	23.7	24.2	—	—	—	—	—	—	—	—	—	—	—	
Tahrir	H	—	—	44.3	39.7	34.2	31.3	29.5	29.5	29.3	28.5	—	—	—	—	—	—	—	—	—	—	—
	L	—	—	20.0	19.1	20.0	23.2	24.9	26.1	27.2	27.4	—	—	—	—	—	—	—	—	—	—	—
Bahtim	H	—	—	46.5	36.0	33.4	30.0	29.8	29.0	27.2	—	—	—	—	—	—	—	—	—	—	—	—
	L	—	—	19.8	19.9	22.5	24.9	26.1	26.5	26.7	—	—	—	—	—	—	—	—	—	—	—	—
Giza	H	—	—	48.4	37.0	32.8	31.0	30.8	30.3	28.6	27.0	—	—	29.7	27.6	26.6	25.5	25.7	—	—	—	—
	L	—	—	20.1	20.3	23.2	25.3	27.0	28.0	27.8	26.7	—	—	17.2	17.6	18.8	20.6	22.2	—	—	—	—
Kharga	H	—	—	46.1	39.5	35.1	32.0	31.7	32.0	31.0	30.1	—	—	—	—	—	—	—	—	—	—	—
	L	—	—	15.0	19.0	23.0	26.8	28.8	29.5	30.3	30.0	—	—	—	—	—	—	—	—	—	—	—

Table C 5.—SURFACE WIND

OCTOBER — 1967

STATION	Wind Speed m/sec at 1½ metres			Days with surface wind speed at (10 metres)							Max. Gust (knots) at (10 metres)	
	Mean of the day	Night time mean	Day time mean	≥10 knots	≥15 knots	≥20 knots	≥25 knots	≥30 knots	≥35 knots	≥40 knots	value	Date
El Kasm	2.9	2.2	3.5	—	—	—	—	—	—	—	—	—
Tahrir	2.0	1.2	2.7	27	15	0	0	0	0	0	27	9
Bahtim	2.0	1.4	2.8	27	11	2	0	0	0	0	24	9
Giza	1.5	1.1	1.8	24	10	0	0	0	0	0	30	17
Kharga	3.2	2.4	4.1	30	17	3	0	0	0	0	33	3

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THE ARAB REPUBLIC OF EGYPT

MONTHLY WEATHER REPORT

VOLUME 10

NUMBER 11

NOVEMBER, 1967

U.D.C. 551, 506.1 (62)

THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

PUBLICATIONS OF THE METEOROLOGICAL AUTHORITY OF THE ARAB REPUBLIC OF EGYPT—CAIRO

In fulfilment of its duties, the Egyptian Meteorological Authority issues several reports and publications on weather, climate and agro-meteorology. The principal publications are described on this page.

Orders for publications should be addressed to :

"Chairman of the Board of Directors, Meteorological Authority, Kubri-el-Qubbeh — CAIRO".

THE DAILY WEATHER REPORT

This report is issued daily by the Meteorological Authority since the year 1901. It includes surface and upper air observations carried out by the relevant networks of the Republic at the principal hours of observations.

As from January 1963 this report was revised to include a condensed representative selection of surface and upper air observations besides the 1200 U.T. surface & 500 mb charts.

As from 1st January 1972, the Daily Weather Report will not be issued or distributed because it does not serve no longer any good purpose as it used to be in the past. The Meteorological Authority is ready to supply the recipients of the Report with any information used to be included in it, if they so desire.

THE MONTHLY WEATHER REPORT

First issued in 1909, the Monthly Weather Report served to give a brief summary of the weather conditions that prevailed over Egypt during the month, with a table showing the mean values for few meteorological elements and their deviations from the normal values. From 1954 to 1957 this report was in a rapid state of development and extension resulting into a voluminous report on January 1958 giving surface, upper air, and agro-meteorological data for Egypt.

As from January 1964, the Monthly Weather Report was pressed to give climatological data for a representative selection of synoptic stations.

THE AGRO-METEOROLOGICAL ABRIDGED MONTHLY REPORT

Gives a review of weather experienced in the agro-meteorological stations of Egypt as well as monthly values of certain elements.

THE ANNUAL REPORT

This report gives annual values and statistics for the various meteorological elements, together with a summary of the weather conditions that prevailed during all months of the year.

CLIMATOLOGICAL NORMALS FOR EGYPT

A voluminous edition was issued in March 1968 which brings normals and mean values up till 1960.

METEOROLOGICAL RESEARCH BULLETIN

First issued in January 1969 on a bi-annual basis. It includes research works carried out by members of staff of "The Meteorological Institute for Research and Training" and the Operational Divisions of the Meteorological Authority.

TECHNICAL NOTES

As from October 1970, the Meteorological Authority started to issue a new series of publications in the form of Technical Notes (non periodical) on subjects related to studies and applications of meteorology in different fields for the benefit of personnel working in these fields.



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Note For explanatory notes on tables please refer to Volume 10, Number 1 (January 1967).

GENERAL SUMMARY OF WEATHER CONDITIONS

NOVEMBER 1967

Rather cold and humid in general, rainy and occasionally thundery in the north with a record of rain in Balteam. Early morning mist over Delta, Canal and Cairo areas.

GENERAL DESCRIPTION OF WEATHER

The prevailing weather this month was generally humid, rather cold in the northern & central parts and warm in the southern parts day time ; cool night time. The fourth week was characterized with a pronounced cold wave which prevailed all over the Republic.

Light to moderate rain fell over the Mediterranean coast during many days, extended sometimes southwards to Lower Egypt & Cairo, and was associated at times with scattered thunderstorms & lightning. Rain was locally heavy during few days over scattered parts in the Mediterranean coast and its daily amount reached a record 40.9 mms) at Balteam on the 7th.

Early morning mist developed frequently over Delta, Canal & Cairo areas.

PRESSURE DISTRIBUTION

The most outstanding features of pressure distribution over the surface maps during this month were :

—The Siberian anticyclone and its southwest extension to East Mediterranean.

—Deep low pressure systems moving eastwards through North Urasia.

—Travelling secondary depressions through the Mediterranean.

During this month, four secondary Mediterranean depressions were distinguished.

The first Mediterranean depression developed over Italy on the 1st, together with a shallow secondary over the Western Desert of Egypt. These two secondaries moved south-eastwards on the 2nd reaching East Mediterranean & Upper Egypt respectively and then proceeded eastwards while filling on the 3rd.

The second Mediterranean depression was observed over Central Mediterranean on the 11th, moved southeastwards on the 12th and passed through north of Egypt while filling on the 13th.

The third Mediterranean depression formed over East Mediterranean on the 19th, moved slowly eastwards on the 20th and then continued its track north-eastwards to North Iraq on the 21st.

The fourth Mediterranean depression developed over West Mediterranean on the 27th and remained rather stationary till the end of the month.

As a result of the above mentioned four Mediterranean secondary depressions, the barometric pressure in Egypt experienced four corresponding falls round the periods : (1st-2nd), (9th-12th), (17-20th) & (29th-30th) respectively.

A fifth fall in the barometric pressure was observed during the period (22nd-23rd) and was due to northward elongation of the Sudan trough.

During the rest periods of the month, the barometric pressure was abnormal and high pressure established over East Mediterranean.

The most important features of pressure distribution over the 700 & 500 mb. upper charts were :

- The deep low pressure systems over North Atlantic & North Urasia and their southward extensions through middle latitudes.
- Transit of three secondary troughs through East Mediterranean & Egypt round the 6th, 14th, & 22nd.
- High pressure belt over the subtropical latitudes south of 30°N.

SURFACE WIND

The most prevailing winds during this month were generally light to moderate NWly. Winds veered to NE ly during some days and backed to SWly in advance of the travelling Mediterranean depressions. Fresh to strong winds blew during several days in scattered places mainly in west of the Mediterranean coast, Western Desert & Red Sea districts.

Calms were frequent most of night & early morning intervals in scattered parts of the country.

Gales were reported over Siwa on the 1st and Quseir on the 2nd.

TEMPERATURE

Maximum temperature was below normal most days of the month. The deviation from normal was remarkable all over the Republic during the fourth week when a pronounced cold wave prevailed. Otherwise, the deviation was slight in the northern & central parts and moderate in the southern parts.

Maximum air temperature values ranged generally between 20°C & 25°C in the northern parts, between 22°C & 27°C in the central parts and between 26°C & 32°C in the southern parts.

The absolute maximum temperature was 37.5°C reported at Aswan on the 2nd.

Minimum temperature oscillated most days of the month slightly round normal in the northern parts, slightly below normal in the central parts and moderately below normal in the southern parts.

Minimum temperature values ranged generally between 11°C & 17°C in the northern parts, between 6°C & 15 °C in the central parts and between 8 °C & 16°C in the southern parts.

The absolute minimum temperature was 1.6°C reported at Dakhla on the 29th.

PRECIPITATION

Rain fell during many days of the month over the Mediterranean district and extended sometimes southwards to Lower Egypt & Cairo. The daily rainfall was generally light to moderate but heavy during few days over scattered parts in the Mediterranean district. It is noteworthy that the daily rainfall at Balteam on the 7th (40.9 mms) is a record for November.

The monthly rainfall was mostly above normal in the Mediterranean district and below normal in Lower Egypt.

The highest daily rainfall was 41.7 mms reported at Borollos L.H. on the 7th.

The highest monthly rainfall was 68.0 mms reported at Balteam.

SURFACE DATA

**Table A 1. — MONTHLY VALUES OF THE ATMOSPHERIC PRESSURE, AIR TEMPERATURE,
RELATIVE HUMIDITY, BRIGHT SUNSHINE DURATION & PICHE EVAPORATION.**

NOVEMBER — 1967

STATION	Atmospheric Pressure (mbs) M.S.L		Air Temperature °C								Relative Humidity %		Bright Sunshine Duration (Hours)			Piche Evaporation mms. Mean		
	Mean	D.F Normal or Average	Maximum		Minimum			A+B 2	Dry Bulb		Wet Bulb		Mean	D.F Normal or Average	Total Actual	Total Possible	%	
			(A) Mean	D.F Normal or Average	(B) Mean	D.F Normal or Average	Mean	D.F Normal or Average	Mean	D.F Normal or Average								
Sallum	1017.2	— 0.6	22.9	— 1.7	15.0	+ 0.1	19.0	18.5	— 1.3	14.6	— 0.7	63	+ 3	—	—	—	5.9	
Mersa Matruh (A)	1017.2	— 0.6	22.2	— 1.3	13.9	+ 0.5	18.0	17.7	— 0.5	14.8	+ 0.1	71	+ 4	—	—	—	5.7	
Alexandria . . (A)	1016.8	— 0.4	23.3	— 1.2	13.8	— 0.9	18.6	18.3	— 1.0	14.9	— 1.2	67	+ 2	231.7	318.0	73	5.2	
Port Said . . (A)	1016.1	— 0.4	22.3	— 1.7	16.9	— 1.6	19.6	19.5	— 1.4	16.0	— 1.6	68	— 3	229.2	318.0	72	6.0	
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Tanta	1016.0	— 1.0	24.1	— 1.7	12.6	+ 0.2	18.4	17.5	— 0.9	14.1	— 1.1	67	— 3	248.1	318.8	78	3.6	
Cairo (A)	1016.4	— 0.7	24.0	— 1.2	13.6	— 0.2	18.8	18.4	— 0.9	13.9	— 1.1	58	— 3	—	—	—	10.1	
Fayoum	1015.6	— 1.8	25.3	— 1.2	12.4	— 0.8	18.8	18.3	— 1.2	14.4	— 0.7	63	+ 4	—	—	—	4.1	
Minya (A)	1016.3	— 0.3	26.0	— 1.8	10.0	— 1.5	17.5	17.0	— 1.4	13.3	— 1.2	64	+ 4	282.8	323.8	87	6.0	
Asyout (A)	1015.9	— 0.5	25.4	— 1.2	12.0	— 0.8	18.7	18.3	— 1.1	12.7	— 0.9	48	0	—	—	—	9.8	
Luxor (A)	1014.8	— 0.2	27.4	— 2.3	11.6	— 0.6	19.5	19.3	— 0.4	13.9	— 0.9	51	+ 4	—	—	—	5.7	
Aswan (A)	1014.5	+ 0.1	27.7	— 2.8	10.9	— 3.7	19.3	20.3	— 2.1	12.7	— 0.8	36	+ 6	—	—	—	11.0	
Siwa	1016.9	— 1.1	24.8	— 1.5	10.4	+ 0.3	17.6	17.5	— 0.5	12.2	— 0.4	50	0	—	—	—	7.5	
Bahariya	1016.6	— 1.1	25.0	— 1.2	12.2	+ 0.9	18.6	18.0	— 0.2	12.3	— 1.2	47	— 4	—	—	—	6.1	
Farafra	1018.0	— 0.5	24.4	— 1.8	9.8	— 0.9	17.1	17.2	— 1.1	11.5	— 0.4	46	+ 3	—	—	—	8.6	
Dakhla	1017.0	+ 1.6	24.8	— 2.0	8.5	— 3.0	16.6	16.9	— 2.1	10.6	— 1.4	40	+ 2	—	—	—	9.1	
Kharga	1015.8	— 0.3	26.4	— 2.3	11.8	— 1.1	19.1	19.3	— 1.3	12.3	— 1.1	43	+ 1	297.9	328.5	91	12.2	
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Hurghada	1014.3	— 0.5	25.2	— 0.7	14.6	— 0.9	19.9	20.0	— 0.9	15.0	— 0.7	55	+ 1	—	—	—	11.2	
Quseir	1014.8	+ 0.2	25.6	— 1.7	18.1	— 1.4	21.8	21.8	— 1.3	16.1	— 1.2	51	— 2	—	—	—	12.8	

Table A 2.—MAXIMUM AND MINIMUM AIR TEMPERATURES

NOVEMBER — 1967

Station	Maximum Temperature °C					Mean	Dev. From Normal	Minimum Temperature °C					Highest	Date	Lowest	Date	No. of Days with Min. Temp.			
	Highest	Date	Lowest	Date	Ns. of Days with Max-Temp.					Highest	Date	Lowest	Date	<10	<5	<0	<-5			
					>25	>30	>35	>40	>45											
Sallum	26.6	11	16.2	22	6	0	0	0	0	14.8	—	18.0	13	12.0	29	0	0	0	0	
Mersa Matruh . . (A)	28.0	1	17.2	22	3	0	0	0	0	19.4	10	9.0	29	1	0	0	0	0	0	
Alexandria . . . (A)	28.8	1	18.7	22	7	0	0	0	0	18.3	9	7.9	27	4	0	0	0	0	0	
Port Said (A)	26.2	1	15.6	26	3	0	0	0	0	22.1	1	10.5	23	0	0	0	0	0	0	
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Tanta	29.5	1	18.0	23	13	0	0	0	0	18.0	2	7.2	28	7	0	0	0	0	0	
Cairo (A)	30.8	1	17.6	25	12	1	0	0	0	18.2	2	6.6	26	3	0	0	0	0	0	
Fayoum	32.7	1	19.1	24	20	1	0	0	0	10.0	—	17.0	1	6.2	26	8	0	0	0	
Minya (A)	33.0	1	19.0	24	15	1	0	0	0	6.5	—	15.5	1	4.2	30	12	1	0	0	
Assyout (A)	34.0	1	18.8	23	17	1	0	0	0	10.7	—	19.0	1	7.4	30	8	0	0	0	
Luxor (A)	34.5	1	20.8	24	24	3	0	0	0	7.3	—	21.0	2	5.8	27	10	0	0	0	
Aswan (A)	37.5	2	20.5	25	24	6	2	0	0	19.8	2	6.6	25	8	0	0	0	0	0	
Siwa	28.4	6	20.3	23	13	0	0	0	0	8.9	—	18.0	13	4.3	28	10	1	0	0	
Bahariya	29.9	1	18.0	24	18	0	0	0	0	9.6	—	14.6	7	5.9	30	6	0	0	0	
Farafra	34.1	1	20.3	24	15	1	0	0	0	9.5	—	15.0	1	3.7	30	13	4	0	0	
Dakhla	36.2	1	19.8	24	19	1	1	0	0	—	—	20.6	1	1.6	29	18	7	0	0	
Kharga	37.4	1	20.4	24	22	2	1	0	0	9.9	—	22.0	1	4.2	5	10	1	0	0	
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Hurghada	29.8	1	20.3	24	20	0	0	0	0	14.1	—	22.7	2	9.8	25	1	0	0	0	
Quseir	30.5	2	22.0	24,25	20	1	0	0	0	17.1	—	23.4	1	13.2	25	0	0	0	0	

Table A 3.—SKY COVER AND RAINFALL

NOVEMBER — 1967

Station	Mean Sky Cover Oct					Rainfall mm										
	00	06	12	18	Daily	Total Amount	Dev. From Normal	Max. Fall in one day		Number of Days With Amount of Rain						
	U.T.	U.T.	U.T.	U.T.	Mean			Amount	Date	< 0.1	≥ 0.1	≥ 1.0	≥ 5.0	≥ 10	≥ 25	≥ 50
Sallum	3.9	3.5	4.7	3.7	3.8	45.2	+16.7	17.6	1	0	9	5	4	2	0	0
Marsa Matruh . . . (A)	2.5	5.0	5.4	3.0	4.0	40.3	+16.7	10.7	15	1	10	8	3	2	0	0
Alexandria . . . (A)	2.3	4.7	5.0	3.2	2.9	39.9	+11.1	15.4	5	2	10	7	2	1	0	0
Port Said . . . (A)	—	2.1	3.2	1.3	—	18.2	+ 8.6	6.7	4	0	7	5	1	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	1.0	2.4	3.4	1.4	3.1	5.0	+ 0.8	3.8	1	0	4	1	0	0	0	0
Cairo (A)	1.8	2.8	4.4	1.8	2.7	3.9	+ 1.2	3.2	1	2	5	1	0	0	0	0
Wayoun	—	1.9	3.6	2.1	—	tr.	— 0.5	tr.	1	1	0	0	0	0	0	0
Minya (A)	0.3	1.3	2.4	1.2	1.3	tr.	— 0.2	tr.	1	1	0	0	0	0	0	0
Asyout (A)	0.4	0.8	2.1	0.7	0.9	tr.	— 0.0	tr.	1	1	0	0	0	0	0	0
Luxor (A)	0.0	1.2	1.7	0.9	1.0	0.0	— 0.1	0.0	—	0	0	0	0	0	0	0
Aswan (A)	0.1	1.0	2.1	0.7	0.9	0.0	— tr.	0.0	—	0	0	0	0	0	0	0
Siwa	1.9	2.1	4.4	0.9	2.3	tr.	— 0.6	tr.	1, 12, 13	3	0	0	0	0	0	0
Bahariya	1.2	2.1	3.2	1.7	1.9	tr.	— 0.6	tr.	1	1	0	0	0	0	0	0
Farafra	—	1.6	2.8	1.9	—	0.0	— 0.1	0.0	—	0	0	0	0	0	0	0
Dakhla	0.2	0.7	1.9	0.5	0.9	0.0	— tr.	0.0	—	0	0	0	0	0	0	0
Kharga	0.5	0.9	1.8	0.1	1.9	0.0	— 0.1	0.0	—	0	0	0	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1.2	1.9	2.8	2.0	2.0	2.4	+ 2.2	2.4	15	1	2	1	0	0	0	0
Quseir	0.7	1.8	2.7	1.0	1.7	10.3	+ 8.4	9.0	2	2	2	1	0	0	0	0

Table A 4.— DAYS OF OCCURRENCE OF MISCELLANEOUS WEATHER PHENOMENA

NOVEMBER — 1967

Station	Precipitation				Frost	Thunderstorm	Mist Vis > 1000 metres	Fog Vis < 1000 Metres	Haze Vis ≥ 1000 Metres	Thick Haze Vis < 1000 Metres	Dust or Sandstorm Vis ≥ 1000 Metres	Gale	Clear Sky	Cloudy Sky	
	Rain	Snow	Ice. Pellets	Hail											
Sallum.	9	0	0	0	0	0	0	0	0	0	0	2	0	6	6
Mersa Matruh. (A)	10	0	0	0	0	0	0	0	0	0	0	2	0	5	3
Alexandria. . . . (A)	10	0	0	0	0	0	6	0	0	0	0	0	0	4	2
Port Said. . . . (A)	7	0	0	0	0	0	0	0	0	0	0	1	0	0	—
El Arish.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta.	4	0	0	0	0	0	0	0	0	0	0	0	0	18	0
Cairo. (A)	5	0	0	0	0	3	3	2	7	0	4	0	0	19	2
Fayoum.	0	0	0	0	0	0	0	0	0	0	0	0	0	—	—
Minya. (A)	0	0	0	0	0	0	5	0	0	0	0	0	0	24	0
Assyout. (A)	0	0	0	0	0	0	0	0	0	0	3	0	0	25	0
Luxor. (A)	0	6	0	0	0	0	0	0	2	0	1	0	0	25	0
Aswan. (A)	0	0	0	0	0	0	0	0	0	0	1	0	0	27	0
Siwa.	0	0	0	0	0	0	1	0	0	0	1	1	1	15	0
Bahariya.	0	0	0	0	0	0	0	0	0	0	1	1	0	20	0
Farafra.	0	0	0	0	0	0	0	0	0	0	1	0	0	—	0
Dakhla.	0	0	0	0	0	0	0	0	6	0	14	0	0	30	0
Kharga.	0	0	0	0	0	0	0	0	0	0	1	0	0	27	0
Tor.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada.	1	0	0	0	0	5	0	0	0	0	1	1	1	18	0
Quseir	2	0	0	1	0	4	0	0	0	0	1	1	1	19	0

Table A 5.—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES NOVEMBER — 1967

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated												
					345 / 014	015 / 044	045 / 074	075 / 104	105 / 134	135 / 164	165 / 194	195 / 224	225 / 254	255 / 284	285 / 314	315 / 344	All directions
Sallum	7	0	0	1—10	49	57	68	18	18	29	13	7	11	54	95	130	551
				11—27	0	0	0	1	3	1	0	2	4	73	53	25	162
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	49	57	68	19	21	30	13	9	15	127	148	155	713
Mersa Matruh. (A)	0	0	0	1—10	63	28	16	25	20	28	29	26	81	51	32	39	438
				11—27	91	34	13	5	3	2	2	13	40	37	9	32	281
				28—47	0	0	0	0	0	0	0	0	0	1	0	0	1
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	154	62	29	30	23	30	31	39	121	89	41	71	720
Alexandria . . (A)	19	0	17	1—10	77	54	63	29	48	14	31	48	9	5	23	51	452
				11—27	52	10	11	4	5	0	2	28	24	6	23	67	232
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All Speeds	129	64	74	33	53	14	33	16	33	11	46	118	684
Port Said. . . (A)	4	0	0	1—10	139	60	33	14	5	11	36	45	39	49	24	106	561
				11—27	19	7	8	1	2	0	2	24	21	38	16	17	155
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	158	67	41	15	7	11	38	69	60	87	40	123	716
Tanta	68	0	1	1—10	45	30	39	30	16	8	61	80	83	35	107	99	633
				11—27	1	0	0	0	0	0	1	14	0	0	0	2	18
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	46	30	39	30	16	8	62	94	83	35	107	101	651
Cairo (A)	103	2	0	1—10	64	63	46	42	31	25	32	47	32	36	45	61	524
				11—27	9	11	4	4	1	5	7	22	15	9	3	1	91
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	73	74	50	46	32	30	39	69	47	45	48	62	615
Fayoum	39	2	2	1—10	176	128	29	6	8	23	26	40	62	36	43	82	659
				11—27	2	7	0	0	0	2	1	0	6	0	0	0	18
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	178	135	29	6	8	25	27	40	68	36	43	82	671
Iinya	33	54	6	1—10	207	16	2	7	2	57	14	13	12	16	30	163	539
				11—27	68	1	1	0	0	0	0	0	0	1	0	17	88
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	275	17	3	7	2	57	14	13	12	17	30	180	627
Assyout	35	2	13	1—10	4	7	11	18	7	21	12	10	40	213	90	60	493
				11—27	8	5	1	0	1	4	2	0	5	24	48	79	177
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	12	12	12	18	8	25	14	10	45	237	138	139	670

Table A 5. (contd.)—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES

NOVEMBER — 1967

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indication												All directions
					345	015	045	075	105	135	165	195	225	255	285	315	
					/	/	/	104	134	164	194	224	254	284	314	344	
Luxor (A)	8	2	4	1—10	73	29	16	39	29	53	137	46	34	101	75	70	702
				11—27	0	0	0	0	0	0	0	0	0	2	0	2	4
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	73	29	16	39	29	53	137	46	34	103	75	72	706
Aswan (A)	4	0	1	1—10	222	139	4	4	5	4	6	5	8	8	15	85	505
				11—27	87	74	0	0	0	0	0	0	0	0	10	39	210
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	309	213	4	4	5	4	6	5	8	8	25	124	715
Sina	28	5	0	1—10	20	50	32	6	33	24	14	29	84	151	66	54	603
				11—27	1	9	12	7	5	2	4	3	4	15	7	83	
				28—47	0	0	0	0	0	0	0	0	0	0	1	0	1
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	21	59	44	53	38	26	18	32	88	166	81	61	687
Dakhla	35	6	26	1—10	39	44	14	10	12	18	30	15	43	87	107	152	571
				11—27	47	0	0	0	0	2	0	0	0	0	1	7	25
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	86	44	14	10	12	20	30	15	43	88	114	177	653
Kharga	22	4	28	1—10	105	52	16	10	11	9	8	14	9	20	59	209	522
				11—27	34	1	0	0	0	0	0	0	0	0	4	85	144
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	159	53	16	10	11	9	8	14	9	20	63	294	666
Hurghada	5	0	0	1—10	27	26	16	6	10	17	5	10	7	37	103	14	278
				11—27	65	15	4	1	4	3	1	1	0	61	156	123	437
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	92	41	20	7	13	23	6	11	7	98	259	137	715
Quseir	13	0	1	1—10	39	27	12	14	10	10	12	12	10	149	129	34	458
				11—27	99	13	0	1	5	1	0	0	1	19	25	84	248
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	138	40	12	15	15	11	12	12	11	168	154	118	706

UPPER AIR CLIMATOLOGICAL DATA

Table B 1.—MONTHLY MEANS AND MONTHLY ABSOLUTE HIGHER & LOWER
VALUES OF ALTITUDE, AIR TEMPERATURE & DEW POINT AT
STANDARD AND ELECTED PRESSURE SURFACES
NOVEMBER — 1967

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Marsa Matruh (A) 0000 U.T.	Surface	28	1017m.b.	1021m.b.	1012m.b.	28	16.1	20.0	11.8	28	13.0
	1000	28	174	203	95	28	16.6	20.0	12.5	28	13.0
	850	28	1538	1580	1500	28	7.6	11.8	0.9	25	1.0
	700	28	3112	3160	3077	28	— 0.9	2.1	— 7.2	18	—10.6
	600	28	4325	4378	4280	28	— 8.5	— 5.7	— 11.1	8	—16.9
	500	28	5713	5777	5651	28	— 18.5	— 15.2	— 21.6	8	—25.0
	400	28	7331	7423	7192	28	— 30.9	— 27.4	— 34.7	4	—35.3
	300	27	9315	9434	9209	27	— 46.3	— 42.7	— 50.3	—	—
	200	24	11923	12056	11784	24	— 58.5	— 51.9	— 64.3	—	—
	150	23	13728	13879	13577	23	— 61.1	— 55.4	— 68.8	—	—
	100	19	16229	16336	16081	19	— 63.8	— 59.7	— 66.6	—	—
	70	17	18405	18489	18140	17	— 61.9	— 59.1	— 64.8	—	—
	60	13	19396	19527	19225	13	— 60.3	— 57.5	— 62.7	—	—
	50	12	20545	20654	20372	12	— 58.5	— 55.1	— 61.9	—	—
	40	8	21965	22078	21797	8	— 54.8	— 53.3	— 57.4	—	—
	30	7	23841	23944	23731	7	— 51.7	— 46.3	— 54.6	—	—
	20	3	26150	26536	26346	3	— 51.8	— 50.9	— 52.7	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 0000 UT	Surface	29	1000m.b.	1006m.b.	990m.b.	29	15.7	23.8	10.0	29	9.2
	1000	29	137	190	52	15	14.3	18.0	10.1	15	8.2
	850	29	1506	1539	1464	29	9.1	18.2	2.0	29	2.3
	700	29	3087	3130	3024	29	0.3	5.2	— 2.7	14	—11.5
	600	29	4305	4357	4230	29	— 7.4	— 3.9	— 11.6	10	—18.6
	500	28	5790	5765	5604	28	— 17.4	— 14.0	— 20.7	9	—26.4
	400	27	7331	7414	7211	27	— 29.6	— 25.2	— 34.0	3	—33.3
	300	27	9322	9432	9166	27	— 44.7	— 35.9	— 48.0	—	—
	200	26	11953	12123	11779	26	— 56.7	— 51.7	— 62.0	—	—
	150	26	13702	13896	13608	26	— 60.6	— 57.3	— 70.7	—	—
	100	26	16260	16105	16130	26	— 64.7	— 60.1	— 70.0	—	—
	70	24	18446	18600	18300	24	— 62.3	— 56.6	— 67.9	—	—
	60	23	19141	19555	19263	23	— 61.4	— 57.8	— 66.6	—	—
	50	23	20535	20698	20377	23	— 59.5	— 54.5	— 64.6	—	—
	40	18	21950	22054	21771	18	— 56.6	— 53.7	— 60.9	—	—
	30	15	23768	23878	23601	15	— 52.8	— 48.5	— 55.1	—	—
	20	10	26389	26499	26228	10	— 50.6	— 48.6	— 53.7	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan (A) 0000 UT	Surface	27	991m.b.	996m.b.	988m.b.	27	15.8	22.3	9.8	27	4.2
	1000	27	120	160	91	—	—	—	—	—	—
	850	27	1501	1538	1472	27	12.6	20.6	6.1	27	— 1.0
	700	25	3102	3164	3058	25	3.6	8.8	— 1.2	11	—10.5
	600	24	4335	4414	4288	24	— 4.3	— 1.2	— 9.3	4	—15.6
	500	24	5747	5844	5680	24	— 13.3	— 9.3	— 19.2	2	—25.8
	400	23	7408	7536	7306	23	— 25.5	— 21.5	— 31.0	—	—
	300	21	9441	9602	9304	21	— 39.6	— 35.6	— 43.6	—	—
	200	21	12123	12320	11999	21	— 55.1	— 51.5	— 57.7	—	—
	150	19	13933	14108	13822	19	— 63.5	— 54.0	— 67.8	—	—
	100	16	16375	16502	16289	16	— 70.8	— 66.5	— 76.3	—	—
	70	14	18505	18580	18430	14	— 68.1	— 65.1	— 71.1	—	—
	60	12	19436	19518	19374	12	— 64.3	— 62.4	— 66.8	—	—
	50	12	20562	20636	20500	12	— 60.2	— 53.5	— 63.1	—	—
	40	11	21964	22032	21895	11	— 57.2	— 54.7	— 59.1	—	—
	30	11	28803	23858	23726	11	— 53.1	— 49.2	— 55.4	—	—
	20	5	26423	26502	26350	5	— 48.6	— 48.0	— 51.0	—	—
	10	—	—	—	—	—	—	—	—	—	—

N = The number of cases the element has been observed during the month.

* The atmospheric pressure corrected to the elevation of the radiosonde station.

UPPER AIR CLIMATOLOGICAL DATA

Table B 1.(contd.)—MONTHLY MEANS AND MONTHLY ABSOLUTE HIGHER & LOWER
VALUES OF ALTITUDE, AIR TEMPERATURE & DEW POINT AT
STANDARD AND SELECTED PRESSURE SURFACES

NOVEMBER — 1967

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Metz-Lorquin (A) 1200 UT	Surface	16	1017m.b.	1022m.b.	1008m.b.	16	21.3	24.6	15.0	16	14.9
	1000	16	169	216	98	16	19.9	23.2	13.6	16	12.6
	850	16	1511	1585	1483	16	9.1	12.8	2.7	14	1.4
	700	16	3124	3176	3077	16	0.6	4.7	—5.4	9	—9.9
	600	16	4343	4398	4282	16	—7.1	—4.5	—11.1	5	—18.2
	500	16	5738	5798	5630	16	—17.8	—13.1	—20.8	4	—24.6
	400	16	7319	7448	7267	16	—30.1	—27.0	—34.6	4	—32.8
	300	16	9357	9458	9205	16	—44.6	—39.8	—49.6	—	—
	200	15	11994	12088	11814	15	—56.0	—51.8	—59.2	—	—
	150	14	13792	13882	13636	14	—59.9	—58.1	—65.2	—	—
	100	11	16318	16389	16179	11	—62.0	—59.5	—64.5	—	—
	70	6	18518	18590	18500	6	—59.9	—57.5	—61.8	—	—
	60	6	19525	19598	19467	6	—58.0	—53.8	—62.2	—	—
	50	6	20584	20764	20620	6	—55.5	—49.9	—58.2	—	—
	40	5	22129	22204	22057	5	—52.9	—49.4	—56.0	—	—
	30	4	24018	24036	23990	4	—49.9	—48.2	—51.7	—	—
	20	3	26695	26737	26633	3	—46.3	—45.2	—47.8	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 1200 UT	Surface	28	999m.b.	1004m.b.	997m.b.	28	22.5	25.9	16.3	28	7.8
	1000	28	133	174	98	10	20.3	24.4	16.5	10	5.0
	850	28	1513	1545	1473	28	9.5	14.8	2.6	26	1.3
	700	28	3097	3150	3028	28	1.2	6.1	—2.9	16	—13.1
	600	28	4320	4396	4235	28	—6.1	—0.8	—9.8	8	—20.7
	500	28	5719	5820	5613	28	—16.2	—11.9	—20.2	4	—25.5
	400	28	7379	7486	7225	28	—28.8	—25.5	—33.5	5	—36.1
	300	28	9357	9510	9177	28	—43.8	—39.9	—49.5	—	—
	200	27	11998	12181	11786	27	—55.9	—50.4	—60.5	—	—
	150	27	13816	13935	13623	27	—59.6	—56.3	—67.4	—	—
	100	27	16322	16462	16175	27	—63.1	—57.7	—67.5	—	—
	70	25	18527	18676	18100	25	—61.1	—58.0	—64.3	—	—
	60	24	19195	19756	19372	24	—59.4	—55.2	—63.6	—	—
	50	22	20530	20786	20519	22	—56.9	—52.6	—61.2	—	—
	40	22	22056	22185	21952	22	—53.7	—50.4	—58.4	—	—
	30	16	23899	23962	23812	16	—50.2	—42.4	—53.6	—	—
	20	15	26643	26785	26485	15	—46.4	—42.0	—49.9	—	—
	10	3	31160	31210	31123	3	—42.0	—40.9	—43.3	—	—
Aswan 1200 UT	Surface	28	990m.b.	966m.b.	986m.b.	28	26.6	37.5	20.3	28	6.4
	1000	28	112	167	67	—	—	—	—	—	—
	850	28	1503	1521	1449	28	11.3	23.9	7.5	22	0.6
	700	24	3119	3174	3085	24	5.2	12.5	0.3	10	—12.8
	600	24	4357	4431	4300	24	—2.8	4.7	—8.7	3	—15.8
	500	22	5779	5881	5686	22	—12.0	—5.6	—17.4	3	—24.8
	400	22	7451	7589	7322	22	—23.4	—17.5	—23.3	4	—30.7
	300	22	9192	9683	9349	22	—37.9	—31.5	—41.6	—	—
	200	22	12189	12432	12063	22	—53.5	—49.0	—55.9	—	—
	150	19	13998	14233	13894	19	—62.7	—55.5	—67.4	—	—
	100	15	16467	16643	16265	15	—68.1	—64.4	—73.6	—	—
	70	13	18632	18780	18560	13	—65.5	—60.6	—72.4	—	—
	60	9	19564	19730	19481	9	—61.9	—58.2	—64.9	—	—
	50	9	20707	20870	20609	9	—57.6	—55.5	—60.7	—	—
	40	7	22123	22287	22020	7	—54.0	—52.0	—57.3	—	—
	30	7	23991	24147	23868	7	—48.9	—45.9	—51.0	—	—
	20	6	26665	26835	26539	6	—44.6	—41.6	—48.9	—	—
	10	—	—	—	—	—	—	—	—	—	—

N = The number of cases the element has been observed during the month.

* The atmospheric pressure corrected to the elevation of the radiosonde station.

Table B 2.—MEAN AND EXTREME VALUES OF THE FREEZING LEVEL AND THE TROPOPAUSE;
THE HIGHEST WIND SPEED IN THE UPPER AIR

NOVEMBER — 1967

Station	Freezing Level									First Tropopause									Highest wind speed				
	Mean			Highest			Lowest			Mean			Highest			Lowest			Altitude (gpm)	Pressure (mb.)	Direction (000—360)°		
	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Speed in Knots		
0000 U.T.	(N)	(N)	(N)							(N)	(N)	(N)											
	Mersa Matruh (A)	2830 (28)	727 (28)	-7.2 (19)	3480	668	—	1610	842	-1.1	12239 (23)	197 (22)	-58.4 (23)	15700	110	-65.6	10000	265	-55.6	12450	184	250	139
	Helwan . . .	2976 (29)	712 (29)	-9.3 (16)	3760	644	-5.5	1760	822	-2.3	12733 (26)	183 (26)	-60.8 (26)	18300	71	-66.4	10000	267	-53.4	13720	152	290	180
	Aswan . . . (A)	3614 (25)	657 (25)	-11.3 (7)	4170	618	—	2900	715	-10.2	15966 (16)	108 (16)	-71.3 (16)	17280	86	-70.7	13980	147	-64.3	13220	169	250	141
1800 U.T.	(N)	(N)	(N)							(N)	(N)	(N)											
	Mersa Matruh (A)	3152 (16)	694 (16)	-7.3 (9)	3740	650	—	2100	742	-2.6	11562 (13)	219 (13)	-55.3 (13)	15500	114	-65.2	9910	269	-53.0	12200	196	220	120
	Helwan . . .	3175 (28)	698 (28)	-8.9 (12)	4300	607	—	1870	808	-1.9	12603 (27)	188 (27)	-59.5 (27)	16418	100	-66.1	10070	269	-51.1	15930	107	290	196
	Aswan . . . (A)	3918 (24)	634 (24)	-14.2 (7)	5220	539	—	3160	694	-18.6	15603 (14)	118 (14)	-68.1 (14)	17340	86	-76.3	14130	145	-66.2	11980	204	230	140

N — The number of cases the element has been observed during the month.

Table B 3.—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES
MERSA MATRUH (A) — NOVEMBER 1967

Time	Pressure Surface Millibar	Wind between specified ranges of direction (000—360)*																			Number of calm winds	Total number of observations (TN)	Mean scalar wind									
		345		015		045		075		105		135		165		195		225		255		285		315								
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m							
0000 U.T.	Surface	4	12	1	16	0	—	1	9	2	6	2	4	0	—	4	12	6	10	1	7	3	14	3	13	1	28	10				
	1000	6	13	0	—	1	15	1	9	2	16	0	—	2	8	0	—	2	18	3	18	3	14	5	15	1	26	14				
	850	6	17	2	10	2	12	1	9	1	21	1	9	0	—	0	—	0	—	3	19	5	18	4	16	1	26	15				
	700	6	20	1	31	2	13	0	—	1	14	0	—	0	—	1	16	1	12	2	18	8	18	3	17	0	25	18				
	600	6	19	2	18	0	—	0	—	0	—	0	—	0	—	1	14	0	—	6	21	3	23	6	21	0	24	20				
	500	4	16	3	20	0	—	0	—	0	—	0	—	0	—	1	14	2	18	5	30	5	26	4	23	0	24	23				
	400	3	27	2	30	1	14	0	—	0	—	0	—	0	—	1	14	7	35	3	50	7	30	0	24	33	0	24				
	300	3	45	0	—	1	30	0	—	0	—	0	—	0	—	1	48	5	47	6	52	6	36	0	22	43	0	22				
	200	2	31	1	12	0	—	0	—	0	—	0	—	0	—	2	95	4	62	5	67	6	42	0	20	55	0	20				
	150	1	26	1	57	0	—	0	—	0	—	0	—	0	—	0	—	1	8	6	43	2	36	4	40	0	15	42	0	15		
	100	1	24	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	30	3	29	1	13	0	7	26	0	7		
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	21	2	24	1	23	1	20	0	6	22	0	6		
	60	0	—	0	—	0	—	0	—	1	6	1	4	0	—	1	20	0	—	0	—	1	7	0	—	4	9	0	4	9		
	50	0	—	0	—	0	—	0	—	0	—	1	1	8	1	16	0	—	0	—	0	—	0	—	0	—	0	2	12	0	2	12
	40	0	—	0	—	0	—	1	13	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	13	0	1	13
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	2	12	2	14	1	15	0	—	1	12	0	—	1	5	0	—	0	—	2	23	3	12	4	14	0	16	14				
	1000	3	15	3	17	0	—	0	—	0	—	1	10	0	—	1	26	1	22	5	18	0	16	17	0	16	17					
	850	4	20	2	17	1	11	0	—	0	—	0	—	2	14	0	—	0	—	1	30	3	16	2	22	0	15	19				
	700	3	29	3	20	0	—	0	—	0	—	0	—	1	31	1	18	0	—	3	29	1	8	3	28	0	15	25				
	600	4	26	2	14	1	16	0	—	0	—	0	—	1	40	1	29	0	—	2	41	1	27	3	29	0	15	27				
	500	5	25	1	20	1	15	0	—	0	—	0	—	1	21	1	44	0	—	3	43	1	21	2	38	0	15	30				
	400	3	32	0	—	1	32	0	—	0	—	0	—	1	52	1	18	0	—	1	62	3	34	4	31	0	14	35				
	300	4	45	0	—	0	—	0	—	0	—	0	—	0	—	2	50	0	—	2	76	2	40	3	33	0	13	47				
	200	1	38	0	—	0	—	0	—	0	—	0	—	2	78	0	—	1	67	3	49	2	41	0	9	54						
	150	1	20	0	—	0	—	0	—	0	—	0	—	1	39	0	—	1	68	3	40	2	34	0	8	38						
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	40	2	34	0	3	36						
	70	1	15	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	15					
	60	1	13	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	13					
	50	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	14	0	1	14				
	40	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	8	0	—	1	8	0	1	8				
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

N = The number of cases the wind has been observed from the range of direction during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

Table B 3 (contd.).—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES

HELWAN—NOVEMBER 1967

Time	Pressure Surface Millibar	Wind between specified ranges of direction (000–360)°																Number of calm winds	Total number of observations (TN)	Mean scalar wind speed (knots)										
		345		015		045		075		105		135		165		195		225		255		285								
		014	(ft) N m	044	(ft) N m	074	(ft) N m	104	(ft) N m	134	(ft) N m	164	(ft) N m	194	(ft) N m	224	(ft) N m	254	(ft) N m	284	(ft) N m	314	(ft) N m	344	(ft) N m					
0000 U.T.	Surface	5	7	4	11	2	8	5	7	2	11	1	4	0	—	1	4	1	6	0	—	0	—	3	6	5	29	6		
	1000	2	14	2	8	3	19	0	—	0	—	1	9	0	—	1	6	1	4	1	7	1	4	2	15	9	15	9		
	850	4	10	2	12	5	15	2	8	1	4	2	6	0	—	1	8	2	17	2	10	6	16	0	29	14	29	14		
	700	4	13	1	12	3	11	1	20	0	—	0	—	3	6	2	8	5	19	2	22	3	26	6	16	0	29	16	29	16
	600	3	17	3	8	1	35	0	—	1	12	0	—	0	—	1	13	2	31	5	19	10	20	2	30	0	28	20	28	20
	500	4	26	0	—	1	35	1	29	0	—	0	—	1	3	0	—	2	24	9	27	3	13	0	27	24	27	24		
	400	3	37	6	—	1	28	0	—	1	20	0	—	1	4	1	22	5	29	10	34	5	19	0	27	23	27	23		
	300	5	40	0	—	1	45	1	24	0	—	0	—	0	—	1	38	3	42	10	56	6	34	0	27	44	27	44		
	200	1	37	1	12	0	—	0	—	0	—	0	—	0	—	0	—	2	22	6	61	8	74	6	42	0	24	53	24	53
	150	2	22	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	48	3	36	8	41	2	30	0	17	38	17	38
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	26	6	32	2	40	4	20	0	13	24	13	24
	70	1	25	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	18	1	47	4	37	1	30	0	9	26	9	26
	60	0	—	1	13	0	—	0	—	0	—	0	—	0	—	1	29	0	—	18	6	—	2	10	0	6	16	6	16	
	50	0	—	0	—	1	21	0	—	1	11	0	—	0	—	1	7	1	19	2	24	1	9	0	—	0	7	20	7	20
	40	0	—	0	—	0	—	0	—	0	—	1	17	0	—	0	—	6	—	0	—	3	22	1	13	0	5	19	5	19
	30	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	17	1	11	0	—	0	0	2	14	14
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
1200 U.T.	Surface	8	12	0	—	2	9	0	—	0	—	0	—	0	—	0	—	3	7	4	8	1	12	3	10	1	28	9		
	1000	2	17	0	—	2	14	0	—	0	—	0	—	0	—	0	—	1	8	0	—	1	7	1	3	2	14	1	19	11
	850	3	6	3	7	7	10	1	7	0	—	0	—	3	7	6	—	12	1	18	6	11	3	12	0	28	10	28	10	
	700	1	15	5	12	3	11	1	3	0	—	0	—	1	18	0	—	0	—	5	14	1	15	5	14	0	28	14	28	14
	600	1	10	1	7	4	18	0	—	0	—	0	—	0	—	2	9	4	11	4	23	9	22	3	16	0	28	18	28	18
	500	5	10	2	10	2	32	0	—	0	—	0	—	0	—	2	22	6	25	8	33	3	18	0	28	23	28	23		
	400	3	26	1	16	2	36	1	12	0	—	0	—	0	—	1	38	7	39	9	34	4	24	0	28	32	28	32		
	300	2	40	1	30	2	26	0	—	0	—	0	—	0	—	0	—	1	45	8	54	10	42	4	24	0	28	41	28	41
	200	2	29	1	14	0	—	0	—	0	—	0	—	0	—	0	—	2	39	6	65	11	57	4	34	0	26	50	26	50
	150	0	—	0	—	1	36	0	—	0	—	0	—	0	—	0	—	0	—	9	58	9	70	6	33	0	25	56	25	56
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	35	6	61	2	26	0	13	27	13	27
	70	1	10	0	—	0	—	0	—	0	—	0	—	0	—	1	22	0	—	4	24	3	37	3	22	0	12	25	12	25
	60	0	—	0	—	0	—	0	—	1	32	0	—	0	—	0	—	5	25	2	12	1	9	0	9	21	9	21		
	50	0	—	0	—	1	10	0	—	0	—	0	—	1	15	0	—	1	77	1	12	3	19	1	29	0	8	25	8	25
	40	0	—	0	—	1	8	0	—	0	—	0	—	0	—	1	8	0	—	1	10	3	26	0	—	0	5	19	5	19
	30	0	—	0	—	0	—	0	—	0	—	1	8	1	8	0	—	1	6	1	61	0	—	0	0	4	4	21	4	21
	20	1	13	0	—	0	—	0	—	0	—	1	28	0	—	0	—	0	—	1	4	1	10	0	—	0	0	4	4	14
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

N = The number of cases the winds has been observed from the range of direction during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

Table B 3 (contd.)—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES
 ASWAN (A) — NOVEMBER — 1967

Time	Pressure Surface Millibar	Wind between ranges of direction (000—360)*														Number of calm winds	Total number of observations (TN)	Mean scalar wind speed (Knots)						
		345	015	045	075	105	135	165	195	225	255	285	315											
		014	044	074	104	134	164	194	224	254	284	314	344											
		N (ft) m	N (ft) m	N (ft) m	N (ft) m	N (ft) m	N (ft) m	N (ft) m	N (ft) m	N (ft) m	N (ft) m	N (ft) m	N (ft) m	N (ft) m	N (ft) m	N (ft) m	N (ft) m							
0000 U.T.	Surface	11	9	10	8	0	—	0	—	0	—	1	14	0	—	1	11	3	11					
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	27	9				
	850	6	8	3	13	6	9	0	—	1	10	0	—	0	—	4	8	1	5	0	27	9		
	700	1	9	0	—	0	—	0	—	0	—	1	13	4	8	6	19	11	14	2	12	0		
	600	0	—	0	—	0	—	0	—	0	—	1	31	6	20	10	22	2	21	3	18	0		
	500	0	—	0	—	0	—	0	—	0	—	1	24	3	41	10	33	6	25	1	20	0		
	400	0	—	0	—	0	—	0	—	0	—	1	69	5	44	10	48	4	34	0	—	0		
	300	0	—	0	—	0	—	0	—	0	—	1	92	6	57	9	69	2	76	0	—	0		
	200	0	—	0	—	0	—	0	—	0	—	1	97	8	69	6	102	3	83	0	—	0		
	150	0	—	0	—	0	—	0	—	0	—	0	—	6	81	9	69	0	—	0	—	0		
	100	0	—	0	—	0	—	0	—	0	—	0	—	7	46	5	56	1	65	0	—	0		
	70	0	—	0	—	1	20	0	—	0	—	0	—	4	15	5	28	0	—	1	20	0		
	60	0	—	0	—	0	—	1	19	0	—	0	—	3	12	4	19	2	15	0	—	0		
	50	1	8	0	—	0	—	3	11	0	—	1	14	0	—	0	—	1	10	2	8	2		
	40	0	—	1	6	1	7	2	11	2	7	2	10	0	—	0	—	1	12	0	—	0		
	30	0	—	0	—	0	—	4	9	1	17	0	—	0	—	0	—	0	—	1	19	0		
	20	0	—	0	—	3	10	0	—	0	—	1	7	0	—	0	—	0	—	0	—	0		
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
1800 U.T.	Surface	11	12	7	8	1	4	0	—	0	—	0	—	1	8	0	—	1	2	0	—	5	6	
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	28	8	
	850	2	14	1	11	2	6	2	8	0	—	1	4	2	12	1	5	2	6	5	9	4	16	0
	700	0	—	0	—	0	—	0	—	0	—	2	10	4	14	5	17	4	11	7	14	2	12	0
	600	0	—	0	—	0	—	0	—	0	—	0	—	3	21	7	18	10	20	4	16	0	—	0
	500	0	—	0	—	0	—	0	—	0	—	0	—	2	38	6	39	10	33	4	22	0	—	0
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	7	56	11	49	2	34	1	21	0
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	80	11	62	4	52	0	—	0
	200	0	—	0	—	0	—	0	—	0	—	0	—	1	6	92	12	81	1	85	0	—	0	
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	58	9	86	0	—	0	—	0
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	36	8	41	0	—	0	—	0
	70	0	—	0	—	0	—	0	—	1	10	0	—	1	21	1	18	3	31	3	18	0	—	0
	60	0	—	0	—	0	—	2	11	0	—	0	—	1	20	3	21	1	29	0	—	0	—	0
	50	0	—	0	—	0	—	0	—	1	22	0	—	0	—	1	15	2	16	2	19	0	—	0
	40	0	—	0	—	0	—	3	15	0	—	1	18	0	—	0	—	1	10	0	—	0	—	0
	30	0	—	0	—	0	—	0	—	2	18	0	—	1	28	0	—	0	—	1	20	0	—	0
	20	0	—	0	—	0	—	1	20	0	—	1	15	1	10	0	—	0	—	0	—	0	—	0
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

N = The number of cases the element has been observed during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

REVIEW OF AGRO-METEOROLOGICAL STATIONS

EL-KASR — NOVEMBER 1967

This month was slightly cooler and more rainy than normal. The mean daily air temperature at $1\frac{1}{2}$ m. above ground was 0.5°C below normal. The total monthly rainfall was appreciably (22.1 mms.) above normal. The month was characterized by a cold spell on the 14th and a pronounced cold wave which prevailed from the 21st till 26th yielding the lowest maximum air temperature (17.1°C) on the 22nd.

Two short warm spells occurred on the 1st and (12th-13th) respectively. The first warm spell was associated with the highest maximum air temperature (28.1°C). The second warm spell was associated with the lowest value of relative humidity (31%) on the 12th.

The extreme maximum soil temperatures were lower than the corresponding values of last November at all depths between 5 and 100 cms., and the differences ranged between 5.2°C at 5 cms. depth and 0.8°C at 100 cms. The extreme minimum soil temperatures were also lower than the corresponding values of last November at all depths between 5 and 100 cms. and the differences ranged between 2.8°C at 10 cms. and 1.8°C at 100 cms.

The mean daily pan evaporation was 0.45 mm. more than the corresponding value of November 1966. The total actual duration of bright sunshine was 33.5 hours less than the corresponding value of November 1966.

TAHRIR — NOVEMBER 1967

This month was cooler and less rainy than last November. The mean daily air temperature at screen level was 3.3°C lower than last November and the total monthly rainfall was 0.4 mms. less. The month was characterized by two cold spells on the 2nd and 15th and a pronounced cold wave during the period (22nd-28th). The cold wave was associated with the lowest maximum air temperature (17.8°C) on the 23rd and the lowest minimum air temperature (5.6°C) on the 26th. Two short warm spells occurred on the 1st and (12th and 13th) respectively. The 1st warm spell was associated with the highest maximum air temperature (29.8°C).

The extreme maximum soil temperatures were lower than the corresponding values of last November at all depths between 5 and 100 cms. and the differences ranged between 4.8°C at 5 cms. depth and 1.2°C at 100 cms. The extreme minimum soil temperatures were also lower than the corresponding values of last November at all depths between 5 and 100 cms. & the differences ranged between 4.4°C at 5 cms. and 2.6°C at 100 cms.

The mean daily pan evaporation was slightly (0.03 mms.) less than the corresponding value of November 1966. The total actual duration of bright sunshine was 1.8 hours less than the corresponding value of November 1966.

BAHTIM NOVEMBER 1967

The month was cooler and more rainy than normal. The mean daily air temperature at $1\frac{1}{2}$ metres above ground was 16.7°C . The total monthly rainfall was 10.8 mms. The month was characterized by a pronounced cold wave during the period (22nd-28th) reaching its peak on the 25th when the lowest maximum air temperature (17.4°C) was reported. A short warm spell occurred on the 1st which was associated with the highest maximum air temperature for the month (30.4°C).

GIZA — NOVEMBER 1967

This month was cooler and more rainy than normal. The mean daily air temperature at $1\frac{1}{2}$ metres above ground was 1.0°C below normal. The total monthly rainfall was 4.4 mms. more than normal. The month was characterized by a pronounced cold wave which prevailed from the 22nd till 29th, and was associated with the lowest maximum air temperature (18.6°C) on the 23rd and the lowest minimum air temperature (4.2°C) on the 26th. Two short warm spells occurred on the 1st and the 13th. The 1st warm spell was associated with the highest maximum air temperature (31.2°C) and the lowest value of relative humidity (25%).

The extreme maximum soil temperatures in the dry field were lower than the corresponding values of last November at all depths between 5 and 100 cms. and the differences ranged between 3.5°C at 5 cms. depth and 1.0°C at 100 cms. The extreme minimum soil temperatures in the dry field were also lower than the corresponding values of last November at all depths between 5 and 100 cms. & the differences ranged between 4.2°C at 5 cms. and 1.6°C at 100 cms.

The mean daily pan evaporation was 0.79 mms. less than the corresponding values of November 1966. The total actual duration of bright sunshine was 12.7 hours more than the corresponding value of November 1966.

KHARGA — NOVEMBER 1967

This month was cooler than normal and rainless. The mean daily air temperature at $1\frac{1}{2}$ metres above ground was 0.8°C below normal. The month was characterized by a pronounced cold wave from the 23rd till the 28th which was associated with the lowest maximum air temperature (20.4°C) on the 24th and the lowest minimum air temperature (4.2°C) on the 25th. A heat wave occurred on the 1st and two warm spells on the 14th and 30th. Except on these three days the daily maximum air temperatures were below normal. The heat wave on 1st was associated with the highest maximum air temperature (37.4°C).

The extreme maximum soil temperatures were lower than the corresponding values of last November at all depths between 5 and 100 cms., except at the 10 cms. depth where the value was slightly higher. The difference for the 10 cms. depth was 0.1°C . and for other depths it ranged between 1.9°C at 5 cms. depth and 0.4°C at 20 cms. The extreme minimum soil temperatures were lower than the corresponding values of last November at all depths between 5 and 100 cms. and the differences ranged between 6.9°C at 10 cms. and 2.4°C at 150 cms.

The mean daily pan evaporation was 1.83 mms. less than the corresponding value of November 1966. The total actual duration of bright sunshine was 8.5 hours less than the corresponding value of November 1966.

**Table C 1. AIR TEMPERATURE AT $1\frac{1}{2}$ METRES ABOVE GROUND
NOVEMBER -- 1967**

STATION	Air Temperature ($^{\circ}\text{C}$)					Mean Duration in hours of daily air temperature above the following values										
	Mean Max.	Mean Min.	Mean of the day	Night time mean	Day time mean	-5°C	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C
El Kasr	22.4	14.1	18.0	16.3	19.7	24.0	24.0	24.0	24.0	18.9	7.2	0.2	0.0	0.0	0.0	0.0
Tahrir	24.5	11.6	17.3	14.5	20.2	24.0	24.0	24.0	22.8	15.3	7.4	1.1	0.0	0.0	0.0	0.0
Bahtim	24.1	10.6	16.7	13.8	19.8	24.0	24.0	23.9	22.1	13.9	6.8	1.1	0.0	0.0	0.0	0.0
Giza	24.5	11.7	17.7	15.2	20.2	24.0	24.0	24.0	23.1	16.9	7.0	0.6	0.0	0.0	0.0	0.0
Kharga	26.4	11.8	19.4	16.3	22.6	24.0	24.0	24.0	22.6	18.2	10.9	4.0	0.3	0.1	0.0	0.0

**Table C 2. ABSOLUTE VALUES OF AIR TEMPERATURE AT $1\frac{1}{2}$ METRES ABOVE GROUND,
ABSOLUTE MINIMUM AIR TEMPERATURE AT 5cms ABOVE GROUND OVER DIFFERENT FIELDS
NOVEMBER -- 1967**

STATION	Max. Temp. at $1\frac{1}{2}$ metres				Min. Temp. at $1\frac{1}{2}$ metres				Min. Temp. at 5 cms. above			
	Highest		Lowest		Highest		Lowest		Dry Soil		Grass	
	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date
El Kasr	28.1	1	17.1	22	19.6	10	10.2	29	7.5	29	—	—
Tahrir	29.8	1	17.8	23	17.3	2	5.6	26	3.6	26	—	—
Bahtim	30.4	1	17.4	25	16.2	2	3.8	30	1.0	30	—	—
Giza	31.2	1	18.6	23	17.6	2	4.2	26	1.4	26	1.8	26
Kharga	37.4	1	20.4	24	22.0	1	4.2	25	2.0	25	—	—

**Table C 3. (SOLAR + SKY) RADIATION, DURATION OF BRIGHT SUNSHINE, RELATIVE HUMIDITY & VAPOUR PRESSURE AT $1\frac{1}{2}$ METRES ABOVE GROUND, EVAPORATION & RAINFALL
NOVEMBER -- 1967**

STATION	Solar+Sky Radiation gm. cal/cm. ²	Duration of Bright Sunshine (hours)			Relative Humidity %				Vapour Pressure (mmes)				Evaporation (mmes)	Rainfall (mmes)					
		Total	Actual	Total Possible monthly	%	Mean of day	1200 U.T.	Lowest	Date	Mean of day	1200 UT	Highest	Date	Piche Pan class (A)	Total Amount monthly	Max. fall in one day	Date		
El Kasr	333.6	204.6	317.6	64	72	61	31	12	11.2	11.5	17.0	1	6.6	28	5.8	5.92	49.0	16.8	14
Tahrir	298.1	236.2	319.2	74	75	53	37	3,13	11.0	11.1	15.4	2	6.5	26	4.4	4.14	7.2	3.9	15
Bahtim	—	235.6	320.1	74	72	48	30	1,3	10.1	10.0	14.7	14	5.6	26	5.2	4.41	10.8	5.2	5
Giza	321.6	245.8	320.1	77	66	46	25	1	9.9	9.5	14.9	1	5.4	26	4.8	4.10	6.9	2.2	17
Kharga	358.8	297.9	328.5	91	45	32	17	1,13	7.4	7.8	11.7	9	4.0	14	12.2	9.19	0.0	0.0	—

**Table C. 4.—EXTREME SOIL TEMPERATURE AT DIFFERENT DEPTHS (cms)
IN DIFFERENT FIELDS**

NOVEMBER 1967

STATION	Highest (H) Lowest (L)	Extreme soil temperature (°C) in dry field at different depths (cms.)									Extreme soil temperature (°C) in grass field at different depths (cms.)								
		2	5	10	20	50	100	200	300	2	5	10	20	50	100	200	300		
El Kaer	H	29.0	27.2	24.6	22.5	22.8	23.7	24.2	—	—	—	—	—	—	—	—	—	—	
	L	11.1	11.4	12.4	14.6	18.1	20.3	22.6	—	—	—	—	—	—	—	—	—	—	
Tahrir	H	37.7	33.3	29.8	27.2	25.9	26.2	27.2	27.2	—	—	—	—	—	—	—	—	—	
	L	10.2	10.5	12.0	15.2	18.0	21.2	24.3	25.5	—	—	—	—	—	—	—	—	—	
Bahtim	H	42.0	31.8	29.0	26.6	26.7	26.8	26.7	—	—	—	—	—	—	—	—	—	—	
	L	10.1	11.3	14.9	18.6	21.0	23.5	25.6	—	—	—	—	—	—	—	—	—	—	
Giza	H	41.6	31.6	28.4	27.3	27.4	28.0	27.8	26.7	24.9	24.0	23.1	22.8	22.9	—	—	—	—	
	L	11.2	11.8	15.6	19.2	21.8	24.8	26.6	26.6	9.5	10.5	12.8	15.0	17.6	—	—	—	—	
Kharga	H	43.0	37.0	33.7	31.0	30.3	30.0	30.5	30.0	—	—	—	—	—	—	—	—	—	
	L	7.3	11.5	15.1	19.6	23.5	26.6	29.2	29.5	—	—	—	—	—	—	—	—	—	

Table C 5.—SURFACE WIND

NOVEMBER 1967

STATION	Wind Speed m/sec at 1.5 metres			Days with surface wind speed at 10 metres								Max. Gust. at 10 metres	
	Mean of the day	Night time mean	Day time mean	≥ 10 knots	≥ 15 knots	≥ 20 knots	≥ 25 knots	≥ 30 knots	≥ 35 knots	≥ 40 knots		value	Date
El Kaer	3.8	3.5	4.1	—	—	—	—	—	—	—	—	—	—
Tahrir	1.9	1.2	2.6	24	15	1	0	0	0	0	0	35	2
Bahtim	2.0	1.4	2.8	23	11	3	2	0	0	0	0	35	17
Giza	1.4	1.0	1.8	23	6	1	0	0	0	0	0	27	1, 17
Kharga	3.1	2.2	3.9	23	16	5	0	0	0	0	0	28	8-18

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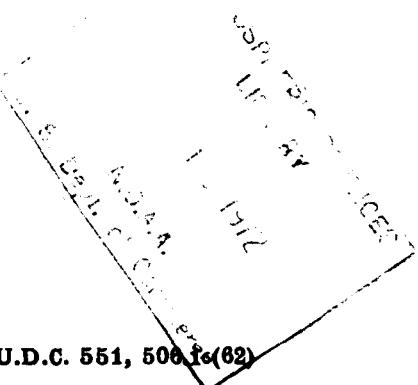
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MONTHLY WEATHER REPORT

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THE EGYPTIAN METEOROLOGICAL AUTHORITY
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PUBLICATIONS OF THE METEOROLOGICAL AUTHORITY OF THE ARAB REPUBLIC OF EGYPT—CAIRO

In fulfilment of its duties, the Egyptian Meteorological Authority issues several reports and publications on weather, climate and agro-meteorology. The principal publications are described on this page.

Orders for publications should be addressed to :

"Chairman of the Board of Directors, Meteorological Authority, Kubri-el-Qubbeh — CAIRO".

THE DAILY WEATHER REPORT

This report is issued daily by the Meteorological Authority since the year 1901. It includes surface and upper air observations carried out by the relevant networks of the Republic at the principal hours of observations.

As from January 1968 this report was revised to include a condensed representative selection of surface and upper air observations besides the 1200 U.T. surface & 500 mb charts.

As from 1st January 1972, the Daily Weather Report will not be issued or distributed because it does not serve no longer any good purpose as it used to be in the past. The Meteorological Authority is ready to supply the recipients of the Report with any information used to be included in it, if they so desire.

THE MONTHLY WEATHER REPORT

First issued in 1909, the Monthly Weather Report served to give a brief summary of the weather conditions that prevailed over Egypt during the month, with a table showing the mean values for few meteorological elements and their deviations from the normal values. From 1954 to 1957 this report was in a rapid state of development and extension resulting into a voluminous report on January 1958 giving surface, upper air, and agro-meteorological data for Egypt.

As from January 1964, the Monthly Weather Report was pressed to give climatological data for a representative selection of synoptic stations.

THE AGRO-METEOROLOGICAL ABRIDGED MONTHLY REPORT

Gives a review of weather experienced in the agro-meteorological stations of Egypt as well as monthly values of certain elements.

THE ANNUAL REPORT

This report gives annual values and statistics for the various meteorological elements, together with a summary of the weather conditions that prevailed during all months of the year.

CLIMATOLOGICAL NORMALS FOR EGYPT

A voluminous edition was issued in March 1968 which brings normals and mean values up till 1960.

METEOROLOGICAL RESEARCH BULLETIN

First issued in January 1969 on a bi-annual basis. It includes research works carried out by members of staff of "The Meteorological Institute for Research and Training" and the Operational Divisions of the Meteorological Authority.

TECHNICAL NOTES

As from October 1970, the Meteorological Authority started to issue a new series of publications in the form of Technical Notes (non periodical) on subjects related to studies and applications of meteorology in different fields for the benefit of personnel working in these fields.



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GENERAL SUMMARY OF WEATHER CONDITIONS

DECEMBER 1967

Cold in general, characterized with five transitory Mediterranean secondaries. Subnormal and deficient rain in the north. Widespread rising sand and sandstorms round the 6th and 22nd. Early morning mist and fog over Delta, Canal and Cairo areas.

GENERAL DESCRIPTION OF WEATHER

The prevailing weather this month was generally cold in the northern parts and rather cold in the central & southern parts, intervened with short warm periods. Light to moderate rain fell over the Mediterranean coast during several days and extended sometimes to lower Egypt & Cairo. Rain was heavy on the 6th in particular over scattered localities in the Mediterranean district.

Rising sand occurred on a wide scale with local sandstorms round the 6th & 22nd. Scattered early morning mist & fog developed frequently over Delta, Canal & Cairo areas.

PRESSURE DISTRIBUTION

The most outstanding features of pressure distribution over the surface maps during this month were :

- The Atlantic anticyclone and its extension over North Africa.
- The Siberian anticyclone.
- Deep low pressure systems passing through North Europe.
- Secondary depressions passing through the Mediterranean.

During this month, five Mediterranean secondary depressions were distinguished.

The first Mediterranean secondary depression developed over Central Mediterranean on the 4th, moved eastwards while deepening and traversed East Mediterranean while filling on the 6th.

The second Mediterranean secondary depression appeared over West Mediterranean on the 10th, proceeded eastwards and passed through East Mediterranean on the 14th.

The third and fourth Mediterranean secondary depressions developed over Central Mediterranean on the 14th & 18th respectively, moved eastwards and passed through East Mediterranean on the 17th & 21st.

The last Mediterranean depression appeared over West Mediterranean on the 26th, moved eastwards reaching Greece on the 29th and filled up the next day.

The barometric pressure in Egypt experienced accordingly four falls round the periods (3rd—6th), (10th—16th), (19th—22nd) & (26th—29th).

In the rear of the Mediterranean secondary depressions, high pressure established over East Mediterranean & North Africa and the barometric pressure in Egypt was above normal.

The most important features of pressure distribution over the 700 & 500 mb. upper charts were :

- The deep low pressure systems over North Atlantic & North Urasia and their southward extensions through middle latitudes.
- Transit of five secondary troughs (or lows) through East Mediterranean & Egypt round the 7th, 17th, 22nd, 26th & 30th.
- High pressure system over the subtropical latitudes south of 30°N.

SURFACE WIND

Surface winds during this month were mostly light to moderate W/NW and backed to SWly in advance of the Mediterranean secondary depressions. Winds became fresh to strong during several days in scattered parts of the Mediterranean & Red Sea districts.

Gales were reported over Sallum on the 6th; El Kasr on the 6th; Mersa Matruh on the 6th & 12th; Dabaa, Ras El Teen, Alexandria & Zaher on the 6th; Port Said on the 6th, 7th & 22nd and Hurghada on the 22nd & 23rd.

TEMPERATURE

Maximum air temperature was moderately below normal most days of the month and rose slightly above normal during short warm periods.

Maximum air temperature values ranged generally between 16°C & 22°C in the northern parts, between 19°C & 25°C in the central parts and between 22°C & 28°C in the southern parts.

The absolute maximum temperature was 31.2°C reported at Aswan on the 16th.

Minimum air temperature showed irregular deviations from normal, but generally it oscillated moderately round normal most days of the month in the northern parts and moderately below normal in the central & southern parts. Minimum air temperature values ranged generally between 7°C & 13°C in the northern & southern parts, and between 4°C & 11°C in the central parts.

The absolute minimum temperature was 0.6°C reported at Dakhla on the 27th.

PRECIPITATION

Light to moderate rain fell over the Mediterranean district during several days and extended sometimes southwards to Lower Egypt & Cairo. Rain was heavy on the 6th in particular over few localities in the Mediterranean district. It is worthy to mention that the monthly rainfall was remarkably below normal over most parts of the Mediterranean district.

The highest daily rainfall was 20.2 mms reported at Abul Kizan on the 17th.

The highest monthly rainfall was 30.0 mms reported at Damietta L.H.

Cairo, February 1972

Chairman (M. F. TAHA)

Board of Directors

**Table A 1.—MONTHLY VALUES OF THE ATMOSPHERIC PRESSURE, AIR TEMPERATURE,
RELATIVE HUMIDITY, BRIGHT SUNSHINE DURATION & PICHE EVAPORATION**

DECEMBER — 1967

STATION	Atmospheric Pressure (mbs) M.S.L.		Air Temperature °C										Relative Humidity %		Bright Sunshine Duration (Hours)			Piche Evaporation mms. Mean
	Mean	D.F. Normal or Average	Maximum		Minimum		$\frac{A+B}{2}$	Dry Bulb		Wet Bulb		Mean	D.F. Normal or Average	Total Actual	Total Possible	%		
			(A) Mean	D.F. Normal or Average	(B) Mean	D.F. Normal or Average		Mean	D.F. Normal or Average	Mean	D.F. Normal or Average							
Sallum	1017.8	+0.8	20.1	-0.4	11.0	0.0	15.6	15.1	-0.7	10.6	-1.1	53	-6	—	—	—	10.4	
Mersa Matruh (A)	1018.6	+0.9	19.6	-0.2	9.8	-0.8	14.7	14.1	-0.4	10.5	-0.9	61	-7	—	—	—	7.6	
Alexandria (A)	1018.8	+1.3	20.4	-0.1	9.6	-1.5	15.0	14.9	-0.4	12.0	-0.7	69	-3	199.4	315.6	63	4.5	
Port Said . . . (A)	1018.5	+1.2	19.4	-0.4	12.7	-0.9	16.0	15.8	-0.5	13.1	-0.6	72	-1	211.7	315.6	67	4.7	
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Tanta	1018.6	+1.9	21.3	0.0	9.8	+1.4	16.4	14.8	+0.1	11.7	-0.0	67	0	222.8	316.8	70	3.3	
Cairo . . . (A)	1019.1	+1.1	21.1	+0.4	10.8	0.0	12.0	15.6	+0.2	19.8	-0.7	51	-11	—	—	—	10.0	
Fayoum	1019.1	+1.1	22.1	+0.2	7.4	-1.0	14.8	14.2	-0.2	10.8	0.0	63	+2	—	—	—	8.8	
Minya . . . (A)	1019.5	+1.2	22.2	+0.2	5.2	-1.7	13.7	12.8	-0.9	9.5	-0.6	62	0	246.1	323.0	76	4.4	
Assyout . . . (A)	1018.9	+0.9	22.6	+0.3	8.4	-0.4	15.5	14.9	-0.3	9.7	-0.5	47	-2	—	—	—	7.6	
Luxor . . . (A)	1018.2	+1.3	25.1	+0.3	7.5	-0.1	16.3	15.7	+0.7	10.6	-0.5	49	-4	—	—	—	5.4	
Aswan . . . (A)	1017.9	+1.5	25.3	-0.6	9.7	-0.4	17.5	17.1	-0.7	10.0	-0.9	34	-2	—	—	—	9.4	
Siwa	1019.2	+0.8	20.8	-0.3	6.0	-0.1	13.3	12.9	-0.7	8.6	-0.6	52	-3	—	—	—	7.4	
Bahariya	1019.5	+1.2	22.3	+0.7	6.6	-0.1	14.4	14.0	-0.8	8.5	-1.0	32	-8	—	—	—	6.7	
Farafra	1020.9	+0.9	22.1	+0.1	4.9	-1.1	13.5	13.1	-0.4	7.7	+0.8	41	-5	—	—	—	7.6	
Dakhla	1019.8	+2.5	22.2	-1.1	4.5	-1.6	13.4	13.5	-0.8	8.1	-0.7	42	-2	270.1	329.2	82	8.1	
Kharga	1018.8	+0.8	24.3	+0.3	7.7	-0.2	16.0	16.1	+0.9	8.9	-0.7	42	-10	—	—	—	11.5	
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Hurghada	1017.8	+1.4	22.8	+0.3	10.6	-1.1	16.7	16.5	-0.7	12.4	-0.1	53	+8	—	—	—	10.1	
Quseir	1018.2	+1.9	23.4	-0.7	15.1	-0.7	19.2	19.2	-0.7	13.7	-1.8	51	-2	—	—	—	14.0	

Table A 2.—MAXIMUM AND MINIMUM AIR TEMPERATURES

DECEMBER — 1967

Station	Maximum Temperature °C						Mean	Dev. From Normal	Minimum Temperature °C						No. of Days with Min. Temp.			
	Highest	Date	Lowest	Date	No. of Days with Max-Temp.					Highest	Date	Lowest	Date	No. of Days with Min. Temp.				
					>25	>30	>35	>40	>45					<10	<5	<0	<-5	
Sallum	27.8	12	13.1	22	2	0	0	0	0	10.6	—	18.7	12	8.0	25	12	0	0
Mersa Matruh	25.6	13	14.0	22	1	0	0	0	0	—	—	15.1	13	5.7	27	17	0	0
Alexandri (A)	24.8	13	14.0	23	0	0	0	0	0	—	—	14.2	14	5.2	25,27	17	0	0
Port Said (A)	23.3	13	13.7	23	0	0	0	0	0	11.5	—	17.2	15	10.2	25	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	26.4	13	14.9	23	3	0	0	0	0	—	—	14.8	15	5.4	25	19	0	0
Cairo (A)	27.0	13	14.2	23	4	0	0	0	0	—	—	15.0	14	5.0	25	9	0	0
Fayoum	27.0	12	15.9	23	5	0	0	0	0	5.3	—	11.0	17	4.4	10	26	2	0
Minya (A)	26.2	15	14.0	23	6	0	0	0	0	1.2	—	9.4	29	1.9	23	31	13	0
Aasyout (A)	28.2	12	15.0	23	9	0	0	0	0	6.7	—	11.3	29	3.3	23	22	2	0
Luxor (A)	31.1	16	17.4	23	17	1	0	0	0	3.6	—	12.1	1	4.2	27	25	3	0
Aewan (A)	31.2	16	17.4	24	17	2	0	0	0	—	—	15.5	17	5.2	25	18	0	0
Siwa	29.9	12	14.6	23	5	0	0	0	0	3.8	—	11.6	13,14	0.8	26	26	15	0
Bahariya	28.7	13	15.9	22,23	8	0	0	0	0	5.3	—	12.4	29	1.7	23	27	10	0
Farafra	29.2	13	14.1	14	8	0	0	0	0	4.9	—	9.9	22	0.9	26	31	14	0
Dakhla	30.1	12	15.2	23	14	1	0	0	0	—	—	12.0	30	0.6	27	29	21	0
Kharga	30.8	16	15.8	23	12	2	0	0	0	5.8	—	15.8	30	3.4	26	24	4	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	26.8	14	15.7	23	6	0	0	0	0	9.7	—	13.8	17	8.4	10	11	0	0
Quseir	28.0	5	17.6	23	9	0	0	0	0	13.6	—	18.2	17	11.3	23	0	0	0

Table A 3.—SKY COVER AND RAINFALL

DECEMBER — 1967

Station	Mean Sky Cover Oct.					Rainfall mms.										
	00 U.T.	06 U.T.	12 U.T.	18 U.T.	Dail Mean	Total Amount	Dev. From Normal	Max. Fall in one day		Number of Days with Amount of Rain						
								Amount	Date	<0.1	≥0.1	≥1.0	≥5.0	≥10	≥25	≥50
Sallum	3.0	2.7	3.1	2.7	2.8	6.3	-13.8	5.4	6	0	3	1	1	0	0	0
Mersa Matruh . . . (A)	2.6	3.7	4.0	2.4	3.1	11.1	-22.8	9.9	6	0	3	2	1	0	0	0
Alexandria (A)	2.8	4.1	5.0	3.5	3.0	24.2	-31.0	7.2	6	2	11	7	2	0	0	0
Port Said (A)	—	2.5	3.6	0.0	—	8.3	-10.6	3.0	23	2	5	4	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	2.4	2.7	3.8	2.4	2.6	4.9	-5.1	3.2	29	0	5	1	0	0	0	0
Cairo (A)	2.7	3.1	4.2	2.3	3.1	0.7	-7.3	0.4	29	0	3	0	0	0	0	0
Fayoum	—	2.7	4.0	2.7	—	tr.	-4.6	tr.	29	1	0	0	0	0	0	0
Minya (A)	1.5	2.4	3.1	1.8	2.1	0.0	-0.7	0.0	—	0	0	0	0	0	0	0
Assyout (A)	1.6	1.9	1.9	2.2	1.9	0.0	-tr.	0.0	—	0	0	0	0	0	0	0
Luxor (A)	1.7	2.5	2.6	2.8	2.4	0.0	-0.1	0.0	—	0	0	0	0	0	0	0
Aswan (A)	1.6	2.4	3.0	2.8	1.9	0.0	-0.2	0.0	—	0	0	0	0	0	0	0
Siwa	1.9	2.4	3.4	1.8	2.4	6.6	+4.5	6.6	27	0	1	1	0	0	0	0
Bahariya	1.9	2.8	3.2	2.2	2.6	tr.	-1.2	tr.	27,29	2	0	0	0	0	0	0
Farafra	—	3.1	3.4	2.8	—	0.0	-0.3	0.0	—	0	0	0	0	0	0	0
Dakhla	0.9	1.7	2.6	1.4	1.8	0.0	-0.1	0.0	—	0	0	0	0	0	0	0
Kharga	1.5	2.2	3.2	1.7	0.7	0.0	-0.3	0.0	—	0	0	0	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1.2	2.3	2.6	2.0	2.0	0.0	-2.2	0.0	—	0	0	0	0	0	0	0
Quseir	2.0	2.8	2.9	2.3	2.4	0.0	-0.1	0.0	—	0	0	0	0	0	0	0

Table A 4.—DAYS OF OCCURRENCE OF MISCELLANEOUS WEATHER PHENOMENA

DECEMBER — 1967

STATION	Precipitation				Frost	Thunderstorm	Mist Vis ≥ 1000 metres	Fog Vis <1000 metres	Haze Vis ≥ 1000 metres	Thick Haze Vis <1000 Metres	Dust or Sandstorm Vis ≥ 1000 metres	Dust or Sandstorm Vis <1000 metres	Gale	Clear Sky	Cloudy Sky	
	Rain	Snow	Ice, Pellets	Hail												
Sallum	3	0	0	0	0	0	0	0	0	0	5	2	1	15	2	2
Mersa Matruh . . . (A)	3	0	0	0	0	0	0	0	0	0	8	2	2	12	4	4
Alexandria (A)	11	0	0	0	0	0	5	4	0	0	1	1	1	7	5	5
Port Said (A)	5	0	0	0	0	0	0	0	0	0	0	0	3	—	—	—
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	5	0	0	0	0	0	1	2	0	0	1	0	0	14	3	3
Cairo (A)	3	0	0	0	0	0	4	1	14	0	7	0	0	12	2	2
Fayoum	0	0	0	0	0	0	0	1	0	0	0	0	0	—	—	—
Minya (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	17	0	0
Assyout (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0
Luxor (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	19	2	2
Aswan (A)	0	0	0	0	0	0	0	0	0	0	3	0	0	14	0	0
Siwa	1	0	0	0	0	0	0	0	0	0	0	0	0	15	3	3
Bahariya	0	0	0	0	0	0	0	0	0	0	0	0	0	14	1	1
Farafra	0	0	0	0	0	0	0	0	3	0	0	0	0	—	—	—
Dakhla	0	0	0	0	0	0	0	6	6	0	0	0	0	21	0	0
Kharga	0	0	0	0	0	0	0	0	0	0	0	0	0	20	2	2
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0	0	0	0	0	0	0	0	0	0	2	0	2	19	0	0
Quseir	0	0	0	0	0	0	0	0	0	0	1	0	0	19	2	2

Table A 5.—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES

DECEMBER — 1967

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated												All directions
					345	015	045	075	105	135	165	195	225	255	285	315	
					/	/	/	/	/	/	/	/	/	/	/	/	
Sallum	9	2	0	1—10	13	5	11	12	6	19	14	13	29	52	63	34	274
				11—27	5	0	0	0	1	0	3	46	67	143	160	22	447
				28—47	0	0	0	0	0	0	0	0	6	4	2	0	12
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	18	5	11	12	7	19	17	59	102	199	228	56	733
Mersa Matruh . . .	2	0	0	1—10	7	2	4	7	19	41	40	52	98	84	33	24	411
				11—27	12	0	1	0	0	7	42	62	93	46	25	22	310
				28—47	1	0	0	0	0	0	0	5	3	4	6	1	20
				≥ 48	0	0	0	0	0	0	0	0	1	0	0	0	1
				All speeds	20	2	5	7	19	48	82	119	195	134	64	47	742
Alexandria	10	2	10	1—10	24	9	18	35	82	48	29	95	24	17	37	55	473
				11—27	6	0	0	0	1	2	5	58	38	38	30	60	238
				28—47	0	0	0	0	0	0	0	5	2	1	0	3	11
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	30	9	18	35	83	50	34	158	64	56	67	118	722
Port Said	2	2	1	1—10	17	25	63	57	33	29	26	66	129	56	28	41	570
				11—27	0	0	0	3	1	0	6	58	53	16	10	13	160
				28—47	0	0	0	0	0	0	0	0	1	0	8	0	9
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	17	25	63	60	34	29	32	124	183	72	46	54	739
Tanta	67	0	0	1—10	69	29	44	68	27	38	113	103	81	42	18	14	646
				11—27	9	0	0	0	0	0	9	7	1	1	4	0	31
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	78	29	44	68	27	38	122	110	82	43	22	14	677
Cairo	45	1	0	1—10	24	23	42	37	67	46	54	82	48	51	23	62	559
				11—27	9	0	5	1	9	8	42	39	15	8	1	1	138
				28—47	0	0	0	0	0	0	0	1	0	0	0	0	1
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	33	23	47	38	76	54	96	122	63	59	24	63	698
Fayoum	81	3	1	1—10	92	83	31	19	17	39	77	71	64	45	49	49	636
				11—27	1	0	0	0	0	0	1	1	6	12	1	2	0
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	93	83	31	19	17	39	78	77	76	46	51	49	659
Minya	103	84	1	1—10	160	11	2	0	11	97	32	5	24	7	21	144	514
				11—27	22	0	0	0	0	1	1	0	11	1	0	6	42
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	182	11	2	0	11	98	33	5	35	8	21	150	556

Table A 5. (contd.) - NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES

DECEMBER — 1967

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated													All directions
					345 / 014	015 / 044	045 / 074	075 / 104	105 / 134	135 / 164	165 / 164	195 / 224	225 / 254	255 / 284	285 / 314	315 / 344		
Asyout	45	19	15	1—10	17	16	29	29	31	26	9	5	29	180	139	49	559	
				11—27	18	7	0	0	0	2	0	3	7	18	20	31	106	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	35	23	29	29	31	28	9	8	36	198	159	80	665	
Luxor	10	0	5	1—10	93	59	40	57	31	65	112	37	42	33	44	113	726	
				11—27	0	0	0	0	0	0	0	0	0	0	3	0	3	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	93	59	40	57	31	65	112	37	42	33	47	113	729	
Aswan	1	0	8	1—10	309	132	10	1	3	1	2	1	4	5	6	37	511	
				11—27	154	55	4	0	1	0	0	0	0	0	1	9	224	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	463	187	14	1	4	1	2	1	4	5	7	46	735	
Siwa	41	3	0	1—10	10	4	17	74	70	31	32	35	83	148	80	27	611	
				11—27	1	0	0	0	10	6	2	9	18	18	16	9	89	
				28—27	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	11	4	17	74	80	37	34	44	101	166	96	36	700	
Dakhla	62	7	4	1—10	29	44	42	29	44	44	48	29	29	34	116	139	628	
				11—27	21	7	0	0	0	0	0	0	0	2	3	11	43	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	50	51	42	29	44	44	48	29	29	36	119	150	671	
Kharga	19	4	0	1—10	145	77	19	11	4	8	8	10	18	23	63	193	579	
				11—27	93	2	1	0	0	0	0	0	2	1	0	43	142	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	238	79	20	11	4	8	8	10	20	24	63	236	731	
Hurghada	23	0	5	1—10	27	26	19	6	16	4	7	2	8	75	135	21	346	
				11—27	24	2	0	0	0	0	0	1	0	54	128	153	362	
				28—47	0	0	0	0	0	0	0	0	0	0	3	5	8	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	51	28	19	6	16	4	7	3	8	129	246	179	716	
Quseir	6	0	1	1—19	45	34	17	7	4	3	2	8	28	167	107	29	451	
				11—27	109	1	0	0	0	0	0	0	0	8	45	117	280	
				28—47	4	0	0	0	0	0	0	0	0	0	0	2	6	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	158	35	17	7	4	3	2	8	28	173	153	148	737	

UPPER AIR CLIMATOLOGICAL DATA

**Table B 1.—MONTHLY MEANS AND MONTHLY ABSOLUTE HIGHER & LOWER
VALUES OF ALTITUDE, AIR TEMPERATURE & DEW POINT AT
STANDARD AND SELECTED PRESSURE SURFACES**

DECEMBER 1967

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm.)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mersa Matruh (A) 0000 U.T.	Surface	29	1018mb.	* 1027mb.	* 1006mb.	29	12.2	17.8	7.3	29	7.3
	1000	29	176	250	79	29	14.1	21.0	8.8	29	7.1
	850	29	1533	1589	1427	29	7.1	18.1	— 3.8	27	— 2.5
	700	29	3107	3209	2975	29	— 1.3	4.6	— 7.5	15	— 9.4
	600	29	4283	4439	4172	29	— 8.9	— 3.0	— 13.5	14	— 15.6
	500	28	5702	5843	5537	28	— 18.1	— 13.4	— 27.0	13	— 25.2
	400	27	7333	7495	7131	27	— 29.2	— 24.9	— 34.9	7	— 33.6
	300	26	9328	9530	9098	26	— 43.1	— 39.2	— 47.3	—	—
	200	20	11973	12153	11735	20	— 57.8	— 51.0	— 62.9	—	—
	150	17	13777	13895	13627	17	— 63.8	— 55.0	— 69.7	—	—
	100	12	16235	16326	16148	12	— 67.6	— 63.9	— 74.1	—	—
	70	6	18427	18496	18340	6	— 63.7	— 61.9	— 66.8	—	—
	60	5	19366	19443	19298	5	— 61.7	— 60.6	— 63.5	—	—
	50	4	20519	20593	20443	4	— 59.7	— 58.0	— 62.8	—	—
	40	3	21929	22002	21855	3	— 53.7	— 47.0	— 57.8	—	—
	30	3	23759	23833	23693	3	— 54.2	— 53.6	— 55.0	—	—
	20	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 0000 U.T.	Surface	31	* 1002 mb.	* 1009mb.	* 992mb.	31	12.7	17.2	6.8	31	3.9
	1000	31	159	215	75	24	12.6	17.3	6.5	22	4.0
	850	31	1516	1567	1437	31	7.6	16.4	— 3.8	26	— 3.2
	700	31	3095	3173	3009	31	0.0	5.0	— 6.5	13	— 10.4
	600	31	4316	4410	4206	31	— 6.8	— 2.2	— 12.8	11	— 14.1
	500	31	5716	5819	5579	31	— 15.7	— 11.6	— 24.4	12	— 22.8
	400	30	7362	7480	7201	30	— 27.1	— 22.3	— 31.2	8	— 31.3
	300	29	9376	9497	9189	29	— 41.6	— 36.7	— 45.4	—	—
	200	26	12022	12122	11863	26	— 57.8	— 49.8	— 64.5	—	—
	150	23	13800	13885	13696	23	— 64.6	— 58.0	— 68.7	—	—
	100	21	16237	16341	16121	21	— 70.2	— 60.9	— 76.2	—	—
	70	15	18370	18480	18270	15	— 66.2	— 58.8	— 70.2	—	—
	60	14	19311	19431	19195	14	— 63.5	— 57.2	— 67.7	—	—
	50	13	20444	20597	20309	13	— 60.7	— 53.7	— 65.0	—	—
	40	12	21846	22029	21695	12	— 56.8	— 49.4	— 61.2	—	—
	30	11	23685	23899	23428	11	— 54.5	— 48.3	— 57.4	—	—
	20	7	26321	26594	26091	7	— 50.9	— 43.2	— 54.0	—	—
	10	1	30862	—	—	1	— 50.7	—	—	—	—

N — The number of case the element has been observed during the month.

* The atmospheric pressure corrected to the elevation of the radiosonde station.

Note : Climatological upper air data for Mersa Matruh, Helwan & Aswan upper air stations at 1200 U.T. and for Aswan at 0000 U.T. are missing, since number of days of release of radiosonde sets at these stations are less than the permissible number needed for calculating or processing monthly values.

Table B 2.—MEAN AND EXTREME VALUES OF THE FREEZING LEVEL AND THE TROPOPAUSE.
THE HIGHEST WIND SPEED IN THE UPPER AIR

DECEMBER -1967

Station	Freezing level								First tropopause								Highest wind speed					
	Mean			Highest			Lowest		Mean			Highest			Lowest		Altitude (gpm)		Pressure (mb.)		Direction (000—300)°	
	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Direction (000—300)°	Speed	
0000 U.T.	(N)	(N)	(N)						(N)	(N)	(N)											
M. Matruh (A)	2703 (29)	735 (29)	-6.5 (20)	3700	659	-9.6	1180	892	-4.2 (15)	12462 (15)	187 (15)	-61.1 (15)	15100	121 (15)	-66.0 (15)	10200	253 (15)	-51.0 (15)	11390 (15)	218 (15)	260 (15)	165 (15)
Helwan . . .	2856 (31)	715 (31)	-11.5 (17)	4170	631	-4.3	1055	900	-3.2 (23)	14210 (23)	151 (23)	-67.9 (23)	17010	89 (23)	-73.3 (23)	10670	244 (23)	-54.4 (23)	11400 (23)	220 (23)	290 (23)	150 (23)
Aswan . . (A)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

N= The number of cases the element has been observed during the month.

Table B 3.—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES
MERSA MATRUH (A)—DECEMBER 1967

Time	Pressure Surface (Millibar)	Wind between specified ranges of direction (000 - 360°)															Number of Calm winds	Total Number of Observations (T N)	Mean Scalar wind Speed (Knots)									
		345		015		045		075		105		135		165		195		225		255		285						
		1/014	1/014	1/014	1/014	1/014	1/014	1/014	1/014	1/014	1/014	1/014	1/014	1/014	1/014	1/014	1/014	1/014	1/014	1/014	1/014	1/014	1/014	1/014				
		N m	N m	N m	N m	N m	N m	N m	N m	N m	N m	N m	N m	N m	N m	N m	N m	N m	N m	N m	N m	N m	N m					
0000 U.T.	Surface	0	—	0	—	0	—	0	—	1	4	3	7	4	11	4	8	14	13	2	18	0	—	1	15	0	29	12
	1000	0	—	0	—	1	6	0	—	0	—	1	3	5	17	1	24	3	25	2	21	6	20	2	20	0	27	19
	850	0	—	0	—	0	—	0	—	0	—	0	—	1	10	4	17	5	26	8	20	5	16	4	16	0	27	19
	700	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	12	37	4	22	8	28	2	27	0	26	31
	600	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	19	10	39	8	43	5	32	1	21	0	25	37
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	56	9	57	9	53	5	37	0	—	0	24	51
	400	0	—	1	—	0	—	0	—	0	—	0	—	0	—	0	—	10	63	10	76	3	47	0	—	0	23	71
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	8	93	10	77	1	81	0	—	0	19	84
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	110	2	88	0	—	0	—	0	4	99
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

N = The number of cases the element has been observed during the month.

T N = The total number of cases the wind has been observed for all directions during the month.

Table B 3. (contd.)—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES
HELWAN (A) — DECEMBER 1967

Time	Pressure Surface (Millibar.)	Wind between specified ranges of direction (000—360°)														Number of Calm winds	Total Number of Observations (T.N.)	Mean Scalar wind Speed (Knots)									
		345		015		045		075		105		135		165		195		225		255		285		315			
		N	(ff)	N	(ff)	N	(ff)	N	(ff)	N	(ff)	N	(ff)	N	(ff)	N	(ff)	N	(ff)	N	(ff)	N	(ff)				
N	m	N	m	N	m	N	m	N	m	N	m	N	m	N	m	N	m	N	m	N	m	N	m				
Surface	4	6	11	6	1	11	5	6	3	5	1	9	1	17	1	16	0	—	0	—	1	9	1	4	2	31	6
1000	2	8	8	9	3	13	4	7	2	6	1	5	1	17	0	—	0	—	1	9	2	11	0	24	19		
850	3	19	2	11	1	10	1	8	0	—	0	—	0	—	2	12	6	18	2	6	8	21	4	12	0	31	16
700	1	26	1	12	0	—	0	—	0	—	0	—	0	—	1	40	3	20	9	25	9	27	7	23	0	31	26
600	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	31	5	39	14	37	7	29	0	29	34		
500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	34	5	62	16	44	6	41	0	29	47		
400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	8	58	15	60	2	45	0	25	59		
300	0	—	0	—	0	—	1	62	0	—	0	—	0	—	0	—	1	44	13	78	3	69	0	18	74		
200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	120	2	104	2	66	0	5	92		
150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	88	1	72	0	2	80		
100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			

N = The number of cases the element has been observed during the month.

TN=The total number of cases the wind has been observed for all directions during the month.

REVIEW OF AGRO-METEOROLOGICAL STATIONS

EL KASR — DECEMBER 1967

This month was slightly cooler and less rainy than normal. The mean daily air temperature at 1.5 metres above ground was 0.2°C lower than normal. The total monthly rainfall was 16.9 mm, less than normal. The month was characterized by a pronounced cold wave during the period (21st-24th) and two cold spells on the 6th and 27th. The cold wave yielded the lowest maximum air temperature (13.9°C) on the 22nd. A heat wave occurred in the period 11th-13th and a warm spell occurred on the 28th. The heat wave yielded both the highest maximum air temperature (25.8°C) and the highest minimum air temperature (14.9°C) on the 13th.

The extreme maximum soil temperatures were lower than the corresponding values of last December at all depths between 5 and 100 cms. and the differences ranged between 1.6°C at 5 cms depth and 2.3°C at 50 cms depth. The extreme minimum soil temperatures were higher than the corresponding values of last December at depths between 5 & 20 cms, and the differences ranged between 0.2°C and 0.8°C. At 50 cms depth the extreme minimum soil temperature was the same as last December and at 100 cms depth it was slightly (0.1°C) lower.

The mean daily Pan evaporation was 0.07 mm. less than the corresponding value of December 1966. The total actual duration of bright sunshine was 26.0 hours less than the corresponding value of December 1966.

TAHRIR — DECEMBER 1967

This month was the same as last December with respect to the mean daily air temperature. The total monthly rainfall was 4.6 mm. less than last December. The month was characterized by two cold waves during the periods (5th-8th) and (22nd-27th) and a cold spell on the 17th. The second cold wave was associated with the lowest maximum air temperature (14.8°C) on the 23rd and the lowest minimum air temperature (4.6°C) on the 25th. Two warm spells occurred during the periods (11th-15th) and (28th—29th). The first warm spell was associated with the highest maximum air temperature (28.1°C) on the 13th and the highest minimum air temperature (14.2°C) on the 15th.

The extreme maximum soil temperatures were lower than the corresponding values of last December at all depths between 5 and 100cms, and the differences ranged between 1.2°C at 5 cms depth and 3.4°C at 50 cms. depth. The extreme minimum soil temperatures were lower than the corresponding values of last December at 5, 10, & 100 cms.

depths, and the differences ranged between 1.3°C at 5 cms depth and 0.2°C at 10 cms depth. At 20 and 50 cms. depths the extreme soil minima were higher than last December and the differences ranged between 0.2 & 0.9°C.

The mean daily Pan evaporation was 0.98 mm. less than the corresponding value of December 1966. The total actual duration of bright sunshine was 6.5 hours less than the corresponding value of December 1966.

BAHTIM -- DECEMBER 1967

This month was slightly cooler and less rainy than normal. The daily maximum and minimum air temperatures were below normal most of the month. The month was characterized by two cold waves during the periods (5th-7th) and (22nd-25th) respectively. The second cold wave was the most pronounced, and yielded the lowest maximum air temperature for the month (13.8°C) on the 23rd and the lowest minimum air temperature (1.9°C) on the 25th. A warm spell occurred during the period (11th-13th) yielding the highest maximum air temperature for the month (27.1°C) on the 13th.

GIZA -- DECEMBER 1967

This month was slightly cooler and less rainy than normal. The mean daily air temperature at 1.5 metres above ground was 0.5°C lower than normal. The total monthly rainfall was only 0.7 mm. (5.2 mm. less than normal).

The month was characterized by two cold waves during periods (2nd - 9th) & (17th - 27th) respectively. The second cold wave was the most pronounced, and yielded the lowest maximum air temperature (15.0°C) on the 23rd and the lowest minimum air temperature (3.0°C) on the 25th. The minimum air temperature at 5cms. above grass (Libia) fell below 0°C on the 25th only when its value reached - 0.4°C. The month was characterized also by a moderate heat wave in the period (11th - 16th) & two warm spells on the 1st, and the 28th. The heat wave was associated with the highest maximum air temperature (26.6°C) on the 13th.

The extreme maximum soil temperatures in the dry field were lower than the corresponding values of last December at all depths between 5 and 100 cms., the differences ranged between 2.4 °C at both 20 & 50 cms. depths and 1.7°C at 100 cms. depth. The extreme minimum soil temperatures in the dry field were the same as last December at 5 and 20 cms. depths, and lower at 10, 50 & 100 cms depths with slight differences ranging between 0.3 & 0.5 °C.

The mean daily Pan evaporation was 0.55 mm. less than the corresponding value of December 1966. The total actual duration of bright sunshine was 6.6 hours more than the corresponding value of December 1966.

KHARGA — DECEMBER 1967

This month was slightly warmer than normal and rainless. The mean daily air temperature at 1.5 metres above ground was 1.0°C higher than normal. The month was characterized by three variant cold waves during the periods : (7th-9th), (17th-20th) & (22nd-26th) respectively. The last cold wave was the most pronounced, and yielded the lowest maximum air temperature (15.8°C) on the 23rd and the lowest minimum air temperature (3.4°C) on the 26th. Warm weather was experienced during two periods : (11th-16th) & (28th-30th) respectively. The first warm period was associated with the highest maximum air temperature (30.8°C) on the 16th and the second warm period was associated with the highest minimum air temperature (15.8°C) on the 30th.

The extreme maximum soil temperatures were lower than the corresponding values of last December at all depths between 5 & 100 cms. and the differences ranged between 4.0°C at 50 cms. depth and 1.5°C at 100 cms depth. The extreme minimum soil temperatures were higher than the corresponding values of last December at depths between 5 and 20 cms. and the differences ranged between 2.4°C at 5 cms depth and 0.2°C at 10 cms depth. At depths between 50 & 100 cms the extreme minimum soil temperatures were lower than last December, and the differences ranged between 0.1°C and 0.8°C.

The mean daily Pan evaporation was 0.05 mm. less than the corresponding value of December 1966. The total actual duration of bright sunshine was 30.3 hours less than the corresponding value of December 1966.

**Table C 1.—AIR TEMPERATURE AT $1\frac{1}{2}$ METRES ABOVE GROUND
DECEMBER — 1967**

STATION	Air Temperature ($^{\circ}\text{C}$)					Mean Duration in hours of daily air temperature above the following values										
	Mean Max.	Mean Min.	Mean of the day	Night time mean	Day time mean	-5°C	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C
El Kasr	19.9	9.7	14.3	12.1	16.4	24.0	24.0	24.0	21.0	9.0	1.8	0.1	0.0	0.0	0.0	0.0
Tahrir	21.6	8.6	14.3	11.8	17.0	24.0	24.0	23.8	18.8	10.5	2.9	0.1	0.0	0.0	0.0	0.0
Bahtim	21.0	7.1	13.5	10.6	16.4	24.0	24.0	23.4	17.5	9.1	2.5	0.2	0.0	0.0	0.0	0.0
Giza	21.5	7.7	14.0	11.2	16.8	24.0	24.0	23.7	17.8	10.0	2.4	0.1	0.0	0.0	0.0	0.0
Kharga	24.3	7.7	16.1	12.6	19.7	24.0	24.0	23.8	19.7	13.0	6.8	1.9	0.1	0.0	0.0	0.0

**Table C 2.—EXTREME VALUES OF AIR TEMPERATURE AT $1\frac{1}{2}$ METRES ABOVE GROUND,
ABSOLUTE MINIMUM AIR TEMPERATURE AT 5cms ABOVE GROUND OVER
DIFFERENT FIELDS**

DECEMBER — 1967

STATION	Max. Temp. at $1\frac{1}{2}$ metres ($^{\circ}\text{C}$)				Min. Temp. at $1\frac{1}{2}$ metres ($^{\circ}\text{C}$)				Min. Temp. at 5 cms. above ($^{\circ}\text{C}$)			
	Highest		Lowest		Highest		Lowest		Dry soil		Grass	
	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date
El Kasr	25.8	13	13.9	22	14.9	13	5.6	27	2.7	1	—	—
Tahrir	28.1	13	14.8	23	14.2	15	4.6	25	1.6	25	—	—
Bahtim	27.1	13	13.8	23	12.1	15	1.9	25	-3.6	25	—	—
Giza	26.6	13	15.0	23	14.2	15	3.0	25	-1.1	25	-0.4	25
Kharga	30.8	16	15.8	23	15.8	30	3.4	26	1.3	26	—	—

Table C 3.—(SOLAR+SKY) RADIATION, DURATION OF BRIGHT SUNSHINE, RELATIVE HUMIDITY AND, VAPOUR PRESSURE AT $1\frac{1}{2}$ METRES ABOVE GROUND, EVAPORATION AND RAINFALL

DECEMBER — 1967

STATION	(Solar+Sky Radiation gm. cal/cm ²)	Duration of Bright Sunshine (hours)			Relative Humidity				Vapour pressure (mms)				Evaporation (mms)	Rainfall (mms)					
		Total Actual monthly	Total Possible monthly	%	Mean of day	1200 U.T.	Lowest	Date	Mean of day	1200 U.T.	Highest	Date		Piche	Pan class A	Total Amount Monthly	Max. Fall in one day	Date	
El Kasr	206.4	191.2	314.0	61	64	49	21	13	7.8	8.0	12.8	2	4.2	13	7.5	5.47	17.8	15.6	6
Tahrir	255.5	208.0	316.9	66	73	51	26	13	8.8	9.0	14.5	16	4.4	22	4.3	3.06	5.9	3.8	21
Bahtim	—	209.4	317.6	67	70	48	22	12	7.9	8.4	13.0	15	3.2	11	4.4	3.67	1.8	1.3	21
Giza	264.6	225.6	317.6	71	66	45	18	12	7.7	8.0	12.9	15	4.3	12	4.1	3.17	0.7	0.7	21
Kharga	304.8	270.1	329.2	82	40	26	12	11,12,13	5.1	5.5	8.8	30	2.9	13, 14	10.5	7.00	0.0	0.0	—

**Table C 4.—EXTREME SOIL TEMPERATURE AT DIFFERENT DEPTHS
IN DIFFERENT FIELDS (cms.)**

DECEMBER — 1967

STATION	Highest (H) Lower (L)	Extreme soil temperature (°C) in dry field at different depths (cms.)								Extreme soil temperature (°C) in grass field at different depths (cms.)							
		2	5	10	20	50	100	200	300	2	5	10	20	50	100	200	300
El Kaer	H	23.6	21.8	19.2	17.7	18.0	20.3	22.5	—	—	—	—	—	—	—	—	—
	L	7.6	8.3	9.0	11.8	14.7	17.7	20.6	—	—	—	—	—	—	—	—	—
Tahrir	H	29.8	26.0	22.1	19.6	18.8	20.8	24.2	25.5	—	—	—	—	—	—	—	—
	L	6.1	7.2	9.6	13.2	15.9	18.5	21.5	23.4	—	—	—	—	—	—	—	—
Bahtim	H	32.3	24.1	22.2	19.5	21.7	23.6	25.6	—	—	—	—	—	—	—	—	—
	L	5.3	8.8	13.2	16.3	18.8	20.7	23.8	—	—	—	—	—	—	—	—	—
Giza	H	34.7	23.7	21.2	20.4	22.0	24.6	26.5	26.6	20.4	18.5	17.2	16.6	17.8	—	—	—
	L	6.2	9.4	13.6	16.4	19.1	21.8	24.6	25.8	7.2	8.6	11.0	12.8	15.2	—	—	—
Kharga	H	35.7	28.9	25.0	22.5	24.0	26.5	29.2	29.5	—	—	—	—	—	—	—	—
	L	6.6	8.7	12.7	16.8	20.5	23.7	27.2	28.7	—	—	—	—	—	—	—	—

Table C 5.—SURFACE WIND

DECEMBER — 1967

STATION	Wind Speed m/sec at 1½ metres			Days with surface wind speed at (10 metres)								Max. Gust 10 metres	
	Mean of the day	Night time mean	Day time mean	≥ 10 (knots)	≥ 15 (knots)	≥ 20 (knots)	≥ 25 (knots)	≥ 30 (knots)	≥ 35 (knots)	≥ 40 (knots)	Value (knots)	Date	
El Kaer	4.3	4.0	4.7	—	—	—	—	—	—	—	—	—	—
Tahrir	1.9	1.5	2.3	20	9	3	3	1	0	0	43	6th	
Bahtim	2.0	1.7	2.5	18	11	5	1	0	0	0	38	5th	
Giza	1.5	1.1	1.8	13	5	3	0	0	0	0	30	22nd	
Kharga	2.8	2.0	3.6	19	11	5	0	0	0	0	31	24th	

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